

MAHARASHTRA JEEVAN PRADHIKARAN

Pune Region



SCHEDULE OF RATES

for 2019-2020



Effective from 01/06/2019



MAHARASHTRA JEEVAN PRADHIKARAN

SCHEDULE OF RATES

FOR YEAR 2019 - 2020

Effective from 1st June 2019

**APPLICABLE FOR PUNE REGION
MAHARASHTRA JEEVAN PRADHIKARAN**

Approved by the Chief Engineer - Maharashtra Jeevan Pradhikaran,
Pune's Marathi Letter No. CE (Pune) / TB-3 / DSR 2019-20 /1024 dated 14 /06/2019.

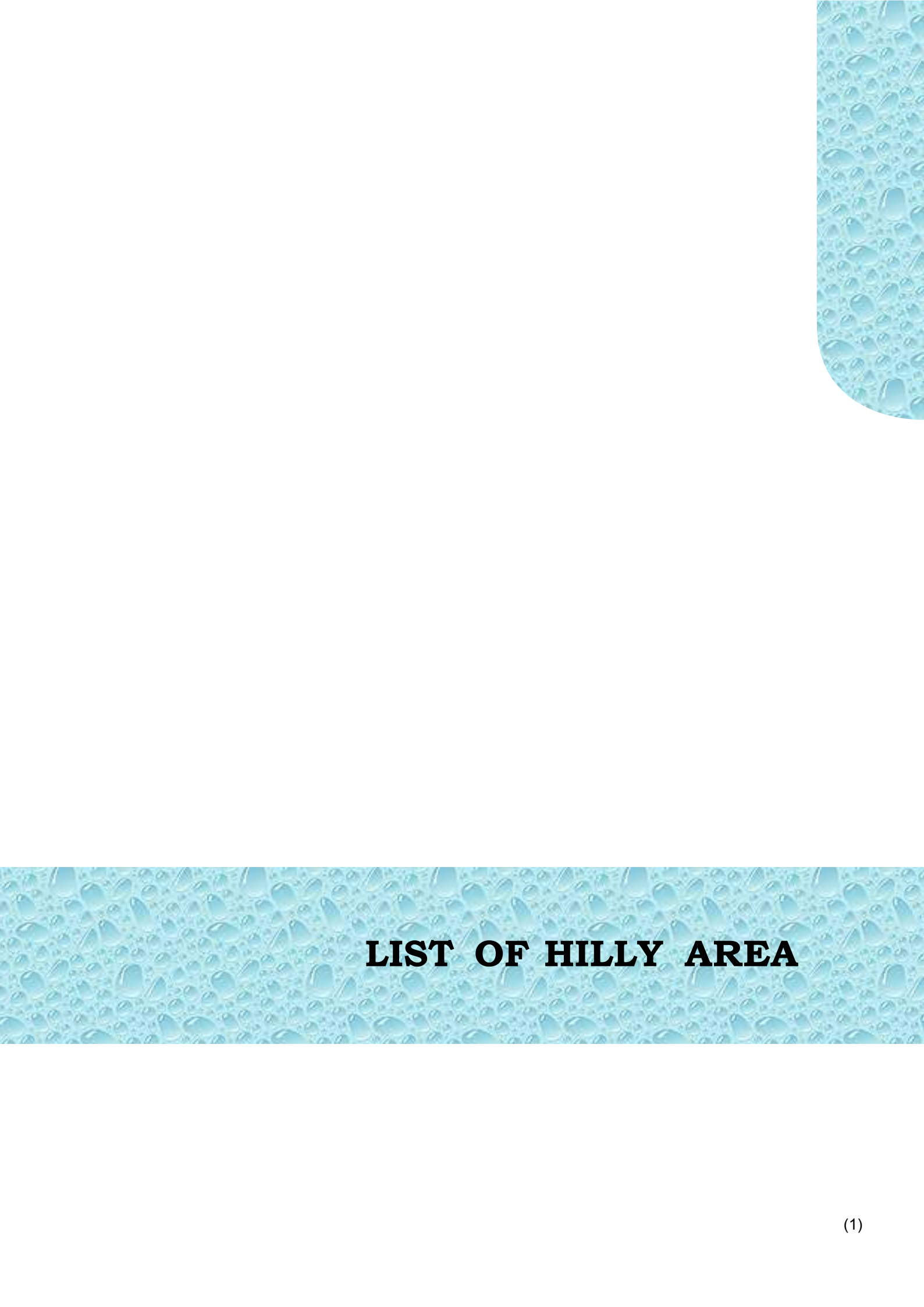
COUNTERSIGNED FOR THE YEAR 2019 - 2020

Sd/-

**CHIEF ENGINEER Maharashtra Jeevan
Pradhikaran, Pune.**

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The background of the page is a light blue color with a pattern of small, realistic water droplets. The droplets are more concentrated in the top right corner and along the bottom edge, where they form a solid-looking band. In the center of this bottom band, the text 'LIST OF HILLY AREA' is written in a bold, black, sans-serif font.

LIST OF HILLY AREA

शासन निर्णय, ग्रामविकास विभाग क्र. ग्रापापु-१०९० / सीआर-१६३/३९-अ

दि.७ डिसेंबर १९९० चे सहपत्र

परिशिष्ट - १

राज्यातील डोंगरी विभागाचे क्षेत्र दर्शविणारे विवरणपत्र

जिल्हा	तालुका	ज्या डोंगरी भागात आहे त्या डोंगराचे नाव	पूर्ण गट ज्या तालुक्यात ५०% पेक्षा जास्त क्षेत्र आहे तो पूर्णगट	उपगट ज्या तालुक्यात २०% पेक्षा जास्त व ५०% पेक्षा कमी क्षेत्र आहे तो उपगट	शेरा
१. ठाणे	१. मोखाडा	सह्याद्री पर्वत रांगा			
वसई	२. वाडा	पश्चिम घाट			
	३. शहापूर	पश्चिम घाट	पूर्ण गट (३)		
	४. मुरबाड	पश्चिम घाट	पूर्ण गट (४)		
	५. जव्हार	पश्चिम घाट	पूर्ण गट (५)		
	६. वसई	पश्चिम घाट	---	उपगट (१)	पूर्व भाग
	७. भिवंडी	पश्चिम घाट	---	उपगट (२)	उत्तर पश्चिम भाग
२. रायगड	८. कर्जत	पश्चिम घाट	पूर्ण गट (६)		
	९. खालापूर	पश्चिम घाट	पूर्ण गट (७)		
	१०. सुधागड	पश्चिम घाट	पूर्ण गट (८)		
	११. रोहा	पश्चिम घाट	पूर्ण गट (९)		
	१२. माणगांव	पश्चिम घाट	पूर्ण गट (१०)		
	१३. महाड	पश्चिम घाट	पूर्ण गट (११)		
	१४. पोलादपूर	पश्चिम घाट	पूर्ण गट (१२)		
	१५. पेण	पश्चिम घाट	पूर्ण गट (१३)		
	१६. मुरुड	पश्चिम घाट	पूर्ण गट (१४)		
	१७. म्हसळा	पश्चिम घाट	पूर्ण गट (१५)		
	१८. पनवेल	पश्चिम घाट	---	उपगट (३)	दक्षिण भाग
३. रत्नागिरी	१९. खेड	पश्चिम घाट	पूर्ण गट (१६)		
	२०. चिपळूण	पश्चिम घाट	पूर्ण गट (१७)		
	२१. संगमेश्वर	पश्चिम घाट	पूर्ण गट (१८)		
	२२. लांजा	पश्चिम घाट	पूर्ण गट (१९)		
	२३. राजापूर	पश्चिम घाट	पूर्ण गट (२०)		
	२४. मंडणगड	पश्चिम घाट	---	उपगट (४)	उत्तरेकडील भाग
४. सिंधुदुर्ग	२५. कळकवली	पश्चिम घाट	पूर्ण गट (२१)		
	२६. सावंतवाडी	पश्चिम घाट	पूर्ण गट (२२)		
	२७. देवगड	पश्चिम घाट	पूर्ण गट (२३)		
	२८. कुडाळ	पश्चिम घाट	पूर्ण गट (२४)		
	२९. वैभववाडी	पश्चिम घाट	पूर्ण गट (२५)		
	३०. मालवण	पश्चिम घाट	---	उपगट (५)	पूर्व भाग

जिल्हा	तालुका	ज्या डोंगरी भागात आहे त्या डोंगराचे नाव	पूर्ण गट ज्या तालुक्यात ५०% पेक्षा जास्त क्षेत्र आहे तो पूर्णगट	उपगट ज्या तालुक्यात २०% पेक्षा जास्त व ५०% पेक्षा कमी क्षेत्र आहे तो उपगट	शेरा
५. नाशिक	३१. इगतपुरी	पश्चिम घाट	पूर्ण गट (२७)		
	३२. नाशिक	पश्चिम घाट	पूर्ण गट (२८)		
	३३. दिंडोरी	पश्चिम घाट	पूर्ण गट (२९)		
	३४. पेठ	पश्चिम घाट	पूर्ण गट (३०)		
	३५. सुरगणा	पश्चिम घाट	पूर्ण गट (३१)		
	३६. कळवण	पश्चिम घाट	पूर्ण गट (३२)		
	३७. बागलाप (सटाणा)	पश्चिम घाट	पूर्ण गट (३३)		
	३८. सिन्नर	पश्चिम घाट	पूर्ण गट (३४)		
६. अहमदनगर	३९. अकोला	पश्चिम घाट	पूर्ण गट (३५)		
	४०. संगमनेर	पश्चिम घाट	पूर्ण गट (३५)		
७. पुणे	४१. जुन्नर	सह्याद्री पर्वत रांगा	पूर्णगट (३६)		
	४२. आंबेगाव	सह्याद्री पर्वत रांगा	पूर्णगट (३७)		
	४३. खेड (राजगुरुनगर)	सह्याद्री पर्वत रांगा	पूर्णगट (३८)		
	४४. मावळ	सह्याद्री पर्वत रांगा	पूर्णगट (३९)		
	४५. हवेली	सह्याद्री पर्वत रांगा	पूर्णगट (४०)		
	४६. मुळशी	सह्याद्री पर्वत रांगा	पूर्णगट (४१)		
	४७. वेल्हे	सह्याद्री पर्वत रांगा	पूर्णगट (४२)		
	४८. भोर	सह्याद्री पर्वत रांगा	पूर्णगट (४३)		
	४९. पुरंदर	सह्याद्री पर्वत रांगा	पूर्णगट (४४)		
८. सातारा	५०. सातारा	सह्याद्री पर्वत रांगा	पूर्णगट (४५)		
	५१. वाई	सह्याद्री पर्वत रांगा	पूर्णगट (४६)		
	५२. पाटणा	सह्याद्री पर्वत रांगा	पूर्णगट (४७)		
	५३. जावळी	सह्याद्री पर्वत रांगा	पूर्णगट (४८)		
	५४. महाबळेश्वर	सह्याद्री पर्वत रांगा	पूर्णगट (४९)		
	५५. खटाव	सह्याद्री पर्वत रांगा	पूर्णगट (५०)		
	५६. खंडाळा	सह्याद्री पर्वत रांगा	पूर्णगट (५१)		
	५७. कोरेगाव	सह्याद्री पर्वत रांगा	पूर्णगट (५२)		
	५८. कराड	सह्याद्री पर्वत रांगा	पूर्णगट	उपगट (६)	पूर्वेकडील पश्चिम भाग
	५९			उपगट (७)	पूर्वेकडील, दक्षिणेकडील, उत्तरेकडील, पश्चिमेकडील काही भाग
	६०. फलटण	सह्याद्री पर्वत रांगा	पूर्णगट	उपगट (८)	दक्षिणेकडील व पूर्वेकडील काही भाग
९. सांगली	६१. शिराळा	सह्याद्री पर्वत रांगा	पूर्णगट (५३)		
१०. कोल्हापूर	६२. शाहूवाडी	सह्याद्री पर्वत रांगा	पूर्णगट (५४)		
	६३. पन्हाळा	सह्याद्री पर्वत रांगा	पूर्णगट (५५)		
	६४. करवीर	सह्याद्री पर्वत रांगा	पूर्णगट (५६)		
	६५. गगनबावडा	सह्याद्री पर्वत रांगा	पूर्णगट (५७)		
	६६. राधानगरी	सह्याद्री पर्वत रांगा	पूर्णगट (५८)		

जिल्हा	तालुका	ज्या डोंगरी भागात आहे त्या डोंगराचे नाव	पूर्ण गट ज्या तालुक्यात ५०% पेक्षा जास्त क्षेत्र आहे तो पूर्णगट	उपगट ज्या तालुक्यात २०% पेक्षा जास्त व ५०% पेक्षा कमी क्षेत्र आहे तो उपगट	शेरा
	६७. कागल	सह्याद्री पर्वत रांगा	पूर्णगट (५९)		
	६८. भुदरगाड	पश्चिम घाट	पूर्ण गट (६०)		
	६९. आजरा	पश्चिम घाट	पूर्ण गट (६१)		
	७०. चंदगाड	पश्चिम घाट	पूर्ण गट (६२)		
	७१. गडहिंग्लज	पश्चिम घाट	पूर्ण गट (६३)		
११. धुळे	७२. साकी	पश्चिम घाट	पूर्ण गट (६४)		
	७३. नवापुरी	पश्चिम घाट	पूर्ण गट (६५)		
	७४. अक्कलकुवा	सातपुडा डोंगर	पूर्ण गट (६६)		
	७५. अकाणी	सातपुडा डोंगर	पूर्ण गट (६७)		
	७६. शिरपूर	सातपुडा डोंगर	पूर्ण गट (६८)		
	७७. शहादा	सातपुडा डोंगर	---	उपगट (९)	पूर्वेकडील व थोडा उत्तरेकडील भाग
	७८. तळोदा	सातपुडा डोंगर	---	उपगट (१०)	उत्तरेकडील भाग
१२. जळगाव	७९. चोपडा	सातपुडा डोंगर	---	उपगट (११)	उत्तरेकडील भाग
	८०. येवला	सातपुडा डोंगर	---	उपगट (१२)	उत्तरेकडील भाग
	८१. रावेर	सातपुडा डोंगर	---	उपगट (१३)	उत्तरेकडील भाग
	८२. ऐदलाबाद	सातपुडा डोंगर	---	उपगट (१४)	उत्तरेकडील व पूर्वेकडील काही भाग
१३. अमरावती	८३. धारणी	सातपुडा डोंगर	पूर्ण गट (६९)		
	८४. चिखलदरा	सातपुडा डोंगर	पूर्ण गट (७०)		
१४. यवतमाळ	८५. पुसद	सातमाळा रांगा	---	उपगट (१५)	उत्तर पश्चिमेकडील भाग, थोडा मध्यम भाग
	८६. अमरखेड	सातमाळा रांगा	---	उपगट (१६)	उत्तरेकडील व पूर्वेकडील भाग
१५. नांदेड	८७. किनवट	सातमाळा रांगा	पूर्ण गट (७१)		
१६. अकोला	८८. पातूर	अजिंठाचे डोंगर	---	उपगट (१७)	दक्षिण व पूर्व
१७. बुलढाणा	८९. खामगांव	अजिंठाचे डोंगर	---	उपगट (१८)	उत्तर व पूर्वेकडील भाग
१८. औरंगाबाद	९०. कन्नड	अजिंठाचे डोंगर	---	उपगट (१९)	उत्तर व पूर्वेकडील भाग
	९१. खुलताबाद	अजिंठाचे डोंगर	---	उपगट (२०)	मधला व दक्षिणेकडील भाग
	९२. सोयगांव	अजिंठाचे डोंगर	पूर्ण गट (७२)		
	९३. सिल्लोड	अजिंठाचे डोंगर	---	उपगट (२१)	उत्तरेकडील व थोडा दक्षिण पश्चिमेकडील भाग
१९. परभणी	९४. हिंगोली	अजिंठाचे डोंगर	---	उपगट (२२)	दक्षिणेकडील भाग
	९५. कलमनूरी	अजिंठाचे डोंगर	---	उपगट (२३)	दक्षिणेकडील भाग

□ □ □

शासन निर्णय, ग्रामविकास विभाग क्र. ग्रापापु-१०९० / सीआर-१६३/३९-अ

दि.७ डिसेंबर १९९० चे सहपत्र

परिशिष्ट - २

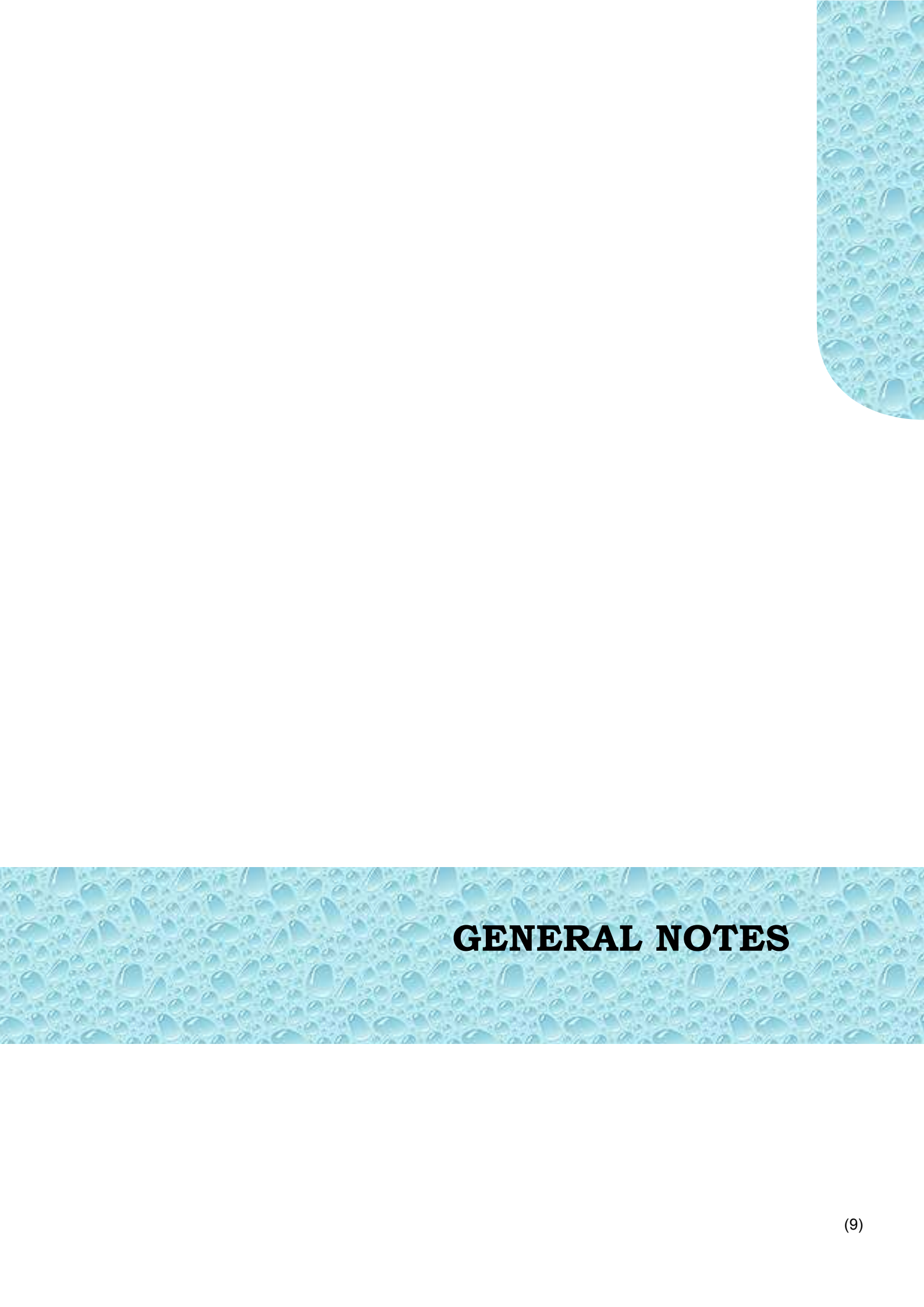
तालुकावार यादीतील उपगट म्हणून घोषित केलेल्या तालुक्यातील गावांची यादी दर्शविणारे विवरणपत्र

जिल्हा म्हणून घोषित केलेला तालुका	उपगट तालुक्यातील गावांची नावे
ठाणे १. वसई	१) चांदज २) तिपलिया ३) शिवनासा ४) पानसा ५) उसगांव ६) पारोळ ७) शिरवली ८) जळकीया ९) वसई १०) सारवण ११) घाटेघर १२) भावखल १३) पेलाट १४) साजिवली १५) दापेवली १६) कार्जुरा १७) खाडेकर १८) भिडा १९) खोलसट २०) खैरे २१) संदा २२) चुडाल २३) तिल्हेस २४) सावट २५) मरतारी २६) बिलवुडा २७) गया २८) दडविरा २९) सातिवली ३०) खाडी ३१) दैडा ३२) दडीप ३३) वामन ३४) काजू ३५) कोल्ही ३६) कोळा ३७) चिंचाटी ३८) होवाऊन
२. भिवंडी	१) गणेशपुरी २) वडवली ३) उसगांव ४) धाडगांव ५) आंदीपाडा ६) गोबाटा ७) बोहिली ८) बावची ९) मालवियोर १०) बेलोली ११) उसपाडी पाडा १२) आंबराई पाडा १३) घ्यार १४) खडकी खुर्द १५) पिंपळशेत १६) खडकी बुद्रुक १७) भाऊपोळ १८) कुहापाडा १९) कुहा २०) आंबापाडा २१) देवपाडा कुलईपाडा २२) पायगांव २३) पाया २४) पेरूनपाडा २५) भावडीपाडा २६) खारभाव २७) गाना २८) लाकेवली २९) चिंचपाडा ३०) गौरीपाडा ३१) डोकरनापाडा ३२) अलकौअरी
रायगड ३. पनवेल	१) माणिकघर २) घोडसावना ३) सावना ४) बामणोरी ५) नामदेवी ६) देवलोळी ७) छावना ८) कालेवली ९) सारसाई १०) आपटा ११) कासव १२) कारडा १३) देवटी १४) बुलसुडा १५) अकूवडी १६) घुराडाव १७) वावेघर १८) कोष्टी १९) दापोवली २०) देवतुला २१) सावला २२) करनाहा २३) कला २४) वंडाना २५) कारल २६) दुलघट २७) कासभाट २८) दिघारी २९) हातवंडी
रत्नागिरी ४. मंडणगड	१) अंबावना बुद्रुक २) केंजालघर ३) लोरी ४) हेल्टी ५) गारीपाडा ६) पेवा ७) पांडेरी ८) पाडवा ९) अंबरसेंट १०) टीव्हेसाई ११) टेरी १२) लोकरवन १३) महाप्रत १४) हडघर १५) तांभी १६) लोहरा १७) गौरज १८) कुंभार १९) गोवेळे २०) पन्हाली २१) धुरी २२) तारवली २३) आंबेगण २४) धनगर २५) सारळ २६) अडखळ २७) व्हेसाई २८) पाट २९) अंजला ३०) सोडली तर्फे व्हेसाई ३१) बुद्रुक ३२) खुर्द ३३) शिंगांव ३४) साडा ३५) तळघर ३६) टाकेडी ३७) पाचरोल ३८) धामणी ३९) वोरखट ४०) गोवा ४१) धामणघर ४२) सामोटी ४३) निगडी
सिंधुदुर्ग ५. मालवण	१) कुसीस २) असरूडी ३) भवानी ४) वंजकार ५) टाटारभाव ६) भाटपावणी ७) शिरावडे ८) राटीवडे ९) आजगणी १०) ब्राह्मण ११) हिवाळे १२) ओवलीये १३) खाटले १४) डुंडुल १५) वायनगावडे १६) वायरन १७) पोईप १८) नेसूरे १९) वाडेच्या पाट २०) नवा पाट २१) गोलवणे २२) डीकवळ २३) चापेखोल २४) कुमामे २५) नांदोसा २६) तिरावडे २७) पारस २९) डेहूल
सातारा ६. कराड	१) मरळी २) चोरजवाडी ३) कोरीवळे ४) बेलदारे ५) म्होप्रे ६) भोळेवाडी ७) साकुडी ८) येणके ९) कोळे १०) कुसूर ११) तुळवण १२) सवादे १३) लाटकेवाडी १४) हवेलवाडी १५) म्हासोळी १६) शेळकेवाडी १७) मनु १८) येवती १९) घराळवाडी २०) हणमंतवाडी २१) टाळगांव २२) येळगांव २३) गौरेवाडी २४) गणेशवाडी २५) भरेवाडी २६) सोळशिरमे २७) महारगडेवाडी २८) जिती २९) अक्काईवाडी ३०) कासारशिरमे ३१) निगडी ३२) धोलपावाडी ३३) किवळ ३४) खोडताईवाडी ३५) मसूर ३६) हणबरवाडी ३७) वाण्याची वाडी ३८) मालवाडी ३९) कांबीखाडी ४०) शिरगांव ४१) तुळी ४२) पाल ४३) हरपळवाडी ४४) रिसवड ४५) वस्ती साकडी ४६) सांजूर ४७) तांबवे ४८) आरेवाडी ४९) गमेवाडी ५०) मोळवाडी ५१) डोळेवाडी ५२) पांढरीवाडी ५३) आणे ५४) आंबवडे ५५) तारूख ५६) भवानपाडा ५७) शितलवाडी ५८) चिरवडी ५९) घरचुंद ६०) कामथी ६१) वाघेरी ६२) करवडी ६३) हजरार माची ६४) वानर माची ६५) वनवास माची ६६) राजमाची ६७) टेंभू ६८) भयापूर ६९) कोरेगांव ७०) कार्वे ७१) वडगांव हवेली ७२) शेपोली कालवडे

जिल्हा म्हणून घोषित केलेला तालुका	उपगट तालुक्यातील गावांची नावे
७. फलटण	१) सालपे २) आदकीखुर्द ३) आळजापूर ४) कोराळे ५) वाघोशी ६) लाथवडा ७) मानेवाडी ८) झाडकबाईवाडी ९) वेलोशी १०) उजलवे ११) दाववाडी १२) भीरेवाडी १३) गिरवी १४) धुमाळवाडी १५) बेडकेवाडी १६) साकळ १७) भाडळी खुर्द १८) दुधेभावी १९) जावली २०) आंदुड २१) कुरवाली बु.
८. मान	१) कळसकरवाडी २) गाडेवाडी ३) भिंडी बुद्रुक ४) पाळवण ५) तोंडले ६) उगळेवाडी ७) शिंदी बुद्रुक ८) शिंगणापूर ९) भांडळी १०) इंजतात ११) कळचांडी १२) विरळी १३) विरळी १४) कुकडवाड १५) मखणे १६) काळेवाडी १७) बोरगेवाडी १८) किरकसाड १९) हिमानगड २०) दिवडी २१) पांढरीवाडी २२) स्वरपवानवाडी २३) शिंदी बुद्रुक २४) बोथे
धुळे ९. शाहदा	१) काकरेदे खुर्द २) काकरेदे बुद्रुक ३) कोंढावळ ४) चांदसेली ५) चिरंडे ६) वरूड बुद्रुक ७) मळगांव ८) भुलाना ९) दरा १०) राणीपुरी ११) आकसपूर १२) मानमोडया १३) नागझरी १४) लंगडी भवसनी १५) कुकडवाड १६) मखणे १७) आभाडपूर खुर्द १८) टरबा १९) नायगांव २०) सिसुरा २१) पेठा २२) फोफाराळे २३) चांदपूर २४) गुदा २५) इकरास २६) काटघर २७) पिरपूर
१०. तळोदा	१) सोजूरवाडा २) माळखुर्द ३) चौगांव खुर्द ४) लाकुड शेट ५) खडी खुर्द ६) काठोर ७) बंधारा ८) खडी बुद्रुक ९) जुवाणी १०) लाखापूर ११) माळ १२) मोरामाळ १३) आंबा गव्हाण १४) सीतपावळी १५) बामनी १६) मलुवा १७) राजापूर
जळगाव ११. चोपडा	१) मराठा २) सत्रासेन ३) खांडरा ४) भोरचिडा ५) उमरटी ६) गोवापाडा ७) कृष्णापूर ८) खान्यापाडा ९) विजापूर १०) मुख्यावतार ११) शेतपाणी १२) बोअरअनंती १३) मालापूर १४) विषणापूर १५) बोरमळी १६) कर्जाणा १७) मेलाना १८) देव्हारी
१२. येवला	१) मनुबाई देवस्थान २) लंगडा आंबा ३) गढुन्या ४) जामन्या ५) उसमळी ६) हरीपुरी ७) नागदेवी ८) वाघझीर ९) आसरावारी
१३. रावेर	१) तिडया २) अंधारमाळी ३) मोहमोडी ४) चिचाडी ५) चिमडया ६) गारखेडा ७) मोहमांडली सून ८) पिंपटकुंड ९) पाल १०) मोरव्हाल ११) जिन्सी १२) गारखेड १३) सहस्नलिंग १४) लालमाती
१४. ऐदलाबाद	१) दुई २) सुकली ३) सोमणगांव ४) डोलरखेड ५) नोंदवेल ६) वायल ७) चारठाणे ८) देवी मंदीर ९) मोरझिरा १०) जोनधखेड ११) लालगोडा १२) हलखेंडा
बुलढाणा १५. खामगांव	१) गिरोळी २) इसालवाडी ३) चिंचखेडनाथ ४) कठडेगांव ५) चिंचखेडबंड ६) शेंद्री ७) मांडणी ८) बोथा ९) खेडी १०) वाकी ११) गारखेड १२) गारोडी १३) धार १४) माटरगांव १५) चिंचखेड १६) कान्ती १७) कझर १८) पिंपरी १९) धनगर १८) लाखनवाडी खुर्द १९) पत्तेपूर २०) निमखेडा २१) हिवरखेडा २२) निरोडा
अकोला १६. पातूर	१) अंबारी २) भानोसा ३) बेलवळ ४) बलकापूर ५) भोकद कंदोली ६) बडी आमराई ७) बोडसा ८) खानापूर ९) काकडदारी १०) कोठारी बुद्रुक ११) पासटल १२) कोसगांव १३) माळराजूर १४) सावरखेड १५) चिंचखेड पातूर १६) शेकापूर १७) कार्ला १८) चारमुळी १९) धरम २०) पांडुर्णा २१) सोनुना २२) चिखलपाव्हळ २३) चोंडी २४) जांब २५) चिंचखेड २६) गोळेगांव २७) आधार सावंगी २८) गावडगांव २९) सावरगांव
यवतमाळ १७. पुसद	१) पिंपळगांव २) हौसापूर ३) बामनवाडी ४) कोन्होळ ५) गहुळी ६) चोडी ७) चिंचघाट ८) देवगव्हाण ९) बेलगव्हाण १०) जामनी धुद ११) मोरगड १२) उडाणी १३) पारवा १४) पांडुणी खुर्द १५) खटकोला १६) पन्हाळा १७) मांजरजवळा खुर्द १८) मांजरजवळा १९) सावतमाळ २०) हनवंतखेड २१) मारवाडी २२) अमृतनगर २३) धनतळ २४) अनजळ २५) उपवनवाडी २६) रामपूरनगर २७) दुधगिरी २८) अनसिंग २९) जांबनाइकर ३०) शिलोना

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१८. उमरखेड	१) दिडाळा २) पाडी ३) पिरंजी ४) गोविंदपूर ५) कुरळी ६) जाम ७) अकोली ८) सातारा ९) मसळगा १०) पाडी ११) जेवळी १२) पिंपळगांव १३) बोडखा १४) पेधा १५) उदापूर १६) सावरगांव १७) परोटी १८) नानी १९) बोरी २०) धेरडी २१) पवनाळा २२) सोनदामी २३) येकंबा २४) मोरचंडी २५) कोसंबी २६) चिखली २७) रामपूर २८) बोरगांव २९) डोंगरगांव ३०) धडोली ३१) भोईर ३२) नवेलालपूर ३३) दिग्रस ३४) काटी ३५) कवठा ३६) वहेली ३७) वानोरा ३८) शिवाजीनगर ३९) जवराळा ४०) उमरी ४१) असोली ४२) सेवालालनगर ४३) वडगांव ४४) दामसरी ४५) थार बुद्रुक ४६) सेरंडी ४७) दरारी ४८) मधुरानगर
औरंगाबाद १९. सिल्लोड	१) धनशिगवाडी २) बाभुळगांव ३) पोखरी ४) बावरा ५) मोमोनाबाद ६) लेहा ७) बाधेगाव बुद्रुक ८) अंधारी ९) जातवा १०) अमरावती ११) घाटांनादा १२) परदेशीवाडी १३) चारनेर १४) धावडा १५) अंधारवाडी १६) कडेगांव १७) सिरसाम १८) नातेगांव १९) घाटमखेळ २०) हालदा २१) पिंपळदरी २२) मुखबार २३) वाघरा २४) रांजणी २५) अजिंठा २६) अनाड २७) आमसरी २८) नारवी २९) वडाळी
२०. कन्नड	१) तांदुळवाडी २) पेवळी ३) मुमसापूर ४) पेकडवाडी ५) कोंडवाडी ६) कल्याणी ७) वडनेर ८) अंबाला ९) आंबा १०) जामडी ११) रेळ १२) कुंजखेड १३) नांदगिरवाडी १४) हिवरखेड १५) वडाळी १६) जेतखेड १७) मालेगांव ढोकळ १८) भारवा १९) मालेगांव लोखोंडे २०) मोहाडी २१) हस्ता २२) माहेगांव २३) चेडसर २४) पळसी खुर्द २५) कांबळी २६) भिलदरी २७) गोरपिंपळी २८) सवखेड बुद्रुक २९) पिंपरखेडा ३०) सफीयाबाद ३१) खडकी ३२) पिशीर ३३) भातवाडी ३४) वासरी ३५) निंभोरा ३६) उमरखेड ३७) सावरगांव ३८) धामणी ३९) आंबेवाडी बुद्रुक ४०) मेहुण ४१) हारेवाडी ४२) वडगांव ४३) लोझा ४४) पांगेरी ४५) भापेवाडी ४६) सोनवाडी ४७) शिवघाट ४८) चिमणापूर ४९) नागापूर ५०) करंजखेड ५१) रेडळगांव ५२) नेवूपूर ५३) घाटशेंटा ५४) टाकळी ५५) अंतूर ५६) लोहगांव
२१. खुलताबाद	१) वडगांव २) पाडळी ३) शिरोळ बुद्रुक ४) सावरखेडा ५) लोधी ६) बोडक ७) खुलताबाद ८) धामणगांव ९) अब्दुलापूर १०) निरगुडी बुद्रुक ११) पिंपरी १२) जमालवाडी १३) म्हैसमाळ १४) शिरसमाळ १५) टाकळी खुर्द १६) आखतवाड १७) वेरुळ १८) मंत्रापूर १९) खुलताबाद २०) सराई २१) बदलाबाई २२) नंदुबाद २३) मापसाळा २४) रसूलपूर २५) शंकरपूरवाडी २६) साबुखेडा २७) खिर्डी २८) सोनखेडा २९) भटजी ३०) लामनगांव ३१) खोतेनापूर ३२) विरमगांव
परभणी २२. हिंगोली	१) नरसी २) लोहगांव ३) सेवली ४) पिंपळी ५) बोरळा ६) जळगांव ७) शेलेगांव ८) सोनेगांव ९) पिंपरखेड १०) देवळा ११) अनापनवाडी १२) ससुळापूर १३) माथा १४) मूर्तिजापूर १५) केहरपिंपरी १६) सिद्धेश्वर १७) दिघुळ १८) टुडचना १९) बडचुना २०) ओढा २१) हनुमानदरी २२) शिवकार २३) जामला २४) जामदन २५) बैजापूर २६) खंबाळा २७) फासेले २८) तबलीगव्हाण २९) मांडेगाव ३०) राख ३१) जामरी खुर्द ३२) पांगरी ३३) बोरळा ३४) नांदुरा ३५) कडवी ३६) आमनखेड ३७) ब्रह्मपुरी ३८) खळगांव ३९) जामसन ४०) पारडी ४१) खळगांव ४२) रिधोस ४३) तेजगांव ४४) कोळंब ४५) सुकली बुद्रुक ४६) सुकली ४७) शिंदेपळ ४८) धनगरवाडी ४९) सबळखेड ५०) बाभुळगांव ५१) गोरेगांव ५२) पोंडीखुर्द ५३) ब्रह्मणवाडी ५४) पिंपरी पाथबळ ५५) बोरखेड ५६) एकंवा ५७) खंडाळा ५८) चिंचोळी ५९) बेलरा ६०) आडगांव ६१) देवठाण ६२) काळेगांव ६३) कलोखेड ६४) कपचुली ६५) चाटोना ६६) देवठाण
२३. कळमनूरी	१) खेड २) धानापूर ३) धोत्रा ४) अमरखोजा ५) शिरस खुर्द ६) शिरस बुद्रुक ७) डिग्रस वापी ८) पिंपरी ९) सांडस १०) रेटकर ११) वराडी १२) खडकत बुद्रुक १३) खडकस खुर्द १४) मंदारी १५) गारखेड १६) महरी खुर्द १७) खडकेत १८) बैज १९) दुधेरी २०) चिंचोळी २१) खोडतला २२) पेडगांव २३) डोंगी २४) नांदुरा २५) बोलापुरी २६) तळेगांव २७) जावा २८) मिसे बुद्रुक २९) कापस ३०) शिपणी ३१) माळवाडी ३२) दाडेगांव ३३) मोतीचोर ३४) विठ्ठलवाडी ३५) पिंपरी उर्द ३६) कानेगांव ३७) फाटना ३८) दाभाडी ३९) पुंचा ४०) मोरगांव



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GENERAL NOTES

MAHARASHTRA JEEVAN PRADHIKARAN PUNE REGION
SCHEDULE OF RATES FOR THE YEAR 2019-2020
GENERAL NOTES

- 1 These rates are applicable to all MJP works in the PUNE REGION with effect from 01/ 06/2018..
- 2 Item of excavation is inclusive of normal manual dewatering, however, seperate item for dewatering shall be proposed in the estimate where underground water is anticipated in significant magnitude.
- 3 The rates of excavation for O & M works where limited working space is available and work is required to be carried out on emergency basis, the rate should be adopted as per the actual rate analysis which shall be approved by concerned S.E. for that particular work only.
- 4 All Material Rates are exclusive of GST(Goods and service Tax). Rates for completed items are also exclusive of GST. While preparation of estimates prevailing GST Percentage, provision should be made separately in recapitulation sheet.
- 5 For all completed items, initial lead of 5 kms. is considered for collection of materials like sand, bricks, metal, stone etc. Appropriate addition for lead charges excluding loading , materials shall be done while estimation. Following quantities shall be considered for additional lead charges beyond 5 Kms for materials required for concrete and reinforcement unloading for these

Capacity (Lit)	Staging (M)	Concrete Qty (Cum)	Reinforcement Qty. (MT)
20000	12	27.4	2.14
30000	12	32.7	2.55
40000	12	37.8	2.95
50000	12	41.9	3.27
60000	12	46.4	3.62
70000	12	51.2	3.99
75000	12	53	4.13
80000	12	56	4.37
90000	12	62.4	4.87
125000	25	107.4	8.38
150000	12	89.8	7.00
160000	12	94.3	7.36
175000	16	117.6	9.17
200000	20	143.6	11.20
200000	25	157	12.25
250000	25	177	13.81
300000	25	206	16.07

Note: Spiral staircase not considered. Above quantities shall be considered for all types of foundation (SBC) and all types of Seismic Zones.

RCC GSR		
Capacity (Lit)	Concrete Qty	Reinforcement Qty. (MT)
25000	13.58	0.9448
50000	18.45	1.5856
75000	30.45	2.0952
1,00,000	39.31	2.7072
1,50,000	54.699	3.778
2,00,000	73.313	6.577
3,00,000	95.092	9.874
5,00,000	143.277	11.90
10,00,000	222.441	15.418

(For WTP/STP works.quantities of completed/ongoing works shall be considered.)
For Capacities beyond the mentioned capacities of ESR and GSR as well as for all capacities of WTP & STPs , the Quantities shall be considered with respect to the already completed/ on going work in the region. all the concrete items for water retaining structures are taken as M-300 grade.Hence aggregate quantity shall be 0.90cum/cum of concrete and sand quantity shall be 0.45cum/cum of concrete for RCC ESR,GSR, all Treatment Plants.

6 These rates are applicable to water supply and sewerage schemes and its allied works only. Rates for Items required for general construction, buildings, roads, Irrigation Works etc. shall be adopted from the current schedule of rates of P.W.D. or Irrigation Deptt. in respective areas. For bore wells, CSR. of GSDA shall be followed. Increase in percentage over normal schedule of rates will also be as per norms of respective C.S.R

7 For mechanical and electrical items related to water supply and sewerage schemes, CSR for 2016-17 prepared by Superintending Engineer (Mechanical), Maharashtra Jeevan Pradhikaran shall be adopted.

8 Following increase in % over normal schedule of rates of M.J.P. for 2018-19 will be applicable. (Ref. PWD GR. No. DSR/1091/CR-6577/Planning-3,dated 08/07/2003).

Sr. No	Area	% Increase
a	Works in Corporation area	5%
b	Works in Municipal areas	2%
c	Works in tribal area/ hilly and inaccessible areas	10%
d	Suger cane area (within 10.0 Km radius)	5%
e	Prison/ Jail area	15%
f	Defense area	20%
g	Excavation for pipeline work along National Highway	10%
h	Excavation for Dist. system pipe lines, Sewerage system in towns	10%

Note:-The superintending engineer should specify sugar factory areas.

9. In case more than one percentage increase on basic rates becomes admissible, instead of adding both, the higher percentage only be taken. (e.g. if any Municipal Council falls in hilly area, then additional percentage in rates will be only 10 % and not with 2 % +10 %). This additional percentage is only on completed item of work and not applicable to items of providing of materials like steel, pipes, valves, specials etc.

10 For hilly and inaccessible areas / tribal areas approved by Government, Planning Department's Circular Nos. (1) 1089/CR-66/Plan-19, dt.23/11/1990 and (2) 1094/P-36/K-1455 dt.02/09/1994, shall be followed. In addition to amendment notified by the Planning Deptt. from time to time.

11 For Action Plan Notified Area, Government's Circular in force from time to time shall be followed.

12 Whenever basic rates of completed items are increased by percentage given at Sr. No. 8, the issue rates of materials to be supplied by the Department (if any) shall be increased by same percentage.

13 This schedule of rates is based on following basic rates for important materials.

Sr. No	Material	Rate in Rs. Per MT.
a	Cement	4969/-
b	Mild Steel	38590/-
c	Tor Steel/CTD bars	4303/-
d	Structural Steel	43543/-
e	Corrosion Resistant Steel (Fe 500)	44072/-

14) Details of standard cement consumption are incorporated in this CSR .

15) Rates for supply of various types of pipes, specials and valves are exclusive of GST but inclusive of, third party inspection charges, storage charges, overhead charges and divisional stores and stacking.

16) Cost of carting of pipes and valves from departmental stores to site of work is not considered in rate analysis, hence this item must be incorporated in each scheme. While inviting tenders if supply is from departmental store, then this item shall appear in the tender, and if the supply is by contractor then this item shall not appear in the tender, even though same is provided in sanctioned scheme, because the contractor is supposed to bring the pipes and valves directly at site.

17) Though the contractor is required to do refilling before hydraulic testing to avoid traffic hurdle, no payment for refilling of the trenches of pipeline shall be payable till satisfactory hydraulic testing is given. Re-excavation required if any, during testing, shall be done by the contractor at his own cost.

18) 10 % of cost of items of water retaining structures, such as GSR/ESR/MBR shall be retained till satisfactory hydraulic testing is given as per IS code.

19) 10 % of cost of total subwork of pipeline work shall be retained, till satisfactory hydraulic testing is given as per IS code or as per tender condition.

20) In case of supply of pipes/valves etc. by contractor, only 80% payment shall be released after supply and 15% after satisfactory hydraulic testing or as per tender condition.

21) AC/PVC Pipes shall not be used in urban areas with respect to circular No. 130 Dtd. 09.03.2009 of MS MJP. HDPE Pipes may be used in distribution system of urban areas with diameter restricted upto 300 mm only provided that area where these pipes are to be laid shall not be rocky area.

22) For use of ready mix cement concrete prior permission of Chief Engineer must be obtained in writing.

23) For Dams , Balancing Tanks , Aerated Lagoons and similar structures, the rates for Film membranes as per prevailing rates for Irrigation Department will be followed

24) Capacity of ESR / GSR to be constructed shall be rounded to nearest 1000 litres always on higher side i.e. if required capacity is 1,23,570 litre, it shall be rounded to 1,24,000 litre. required capacity is 8,26,070 litre, it shall be rounded to 8,27,000 litre. Similarly, if

25) Capacity of Unconventional / conventional Treatment Plants shall be rounded to nearest 0.5 Mld- always on higher side i.e. if WTP of 2.37 Mld is required; it shall be rounded to 2.5 Mld. For WTP having capacity less than 0.5 mld, package type WTP should be considered.

26) Provision for insurance at 1% is considered in Rate analysis of CSR 2018-19. These rates are applicable only for tendered works, these rates should be reduced by 1 % of total rate when works are to be carried out on piecemeal works and other small works without tendering.

27) Rates given in this CSR are for estimation purpose only.

28) The makes of Sluice / Butterfly valves etc. to be used for inlet / outlets of ESRs / GSRs / MBRs / Pumping main / Rising main and WTP should be from approved makes of M.J.P .

29) Mechanical CSR rates for respective items shall be followed while estimation and the list of approved

30) In case of Geo membrane sheet to be provided by the agency 50% payment against supply. 30% payment against lowering and 20% against Hydraulic testing is to be given.

31) The royalty charges are considered in the rate analysis of CSR 2018-19 As per Government Resolution No. Rev and forest Dept Gaukhani 10/1009/ Pra.Kra.309/Kha. Mantralaya dt.11.2.2010.

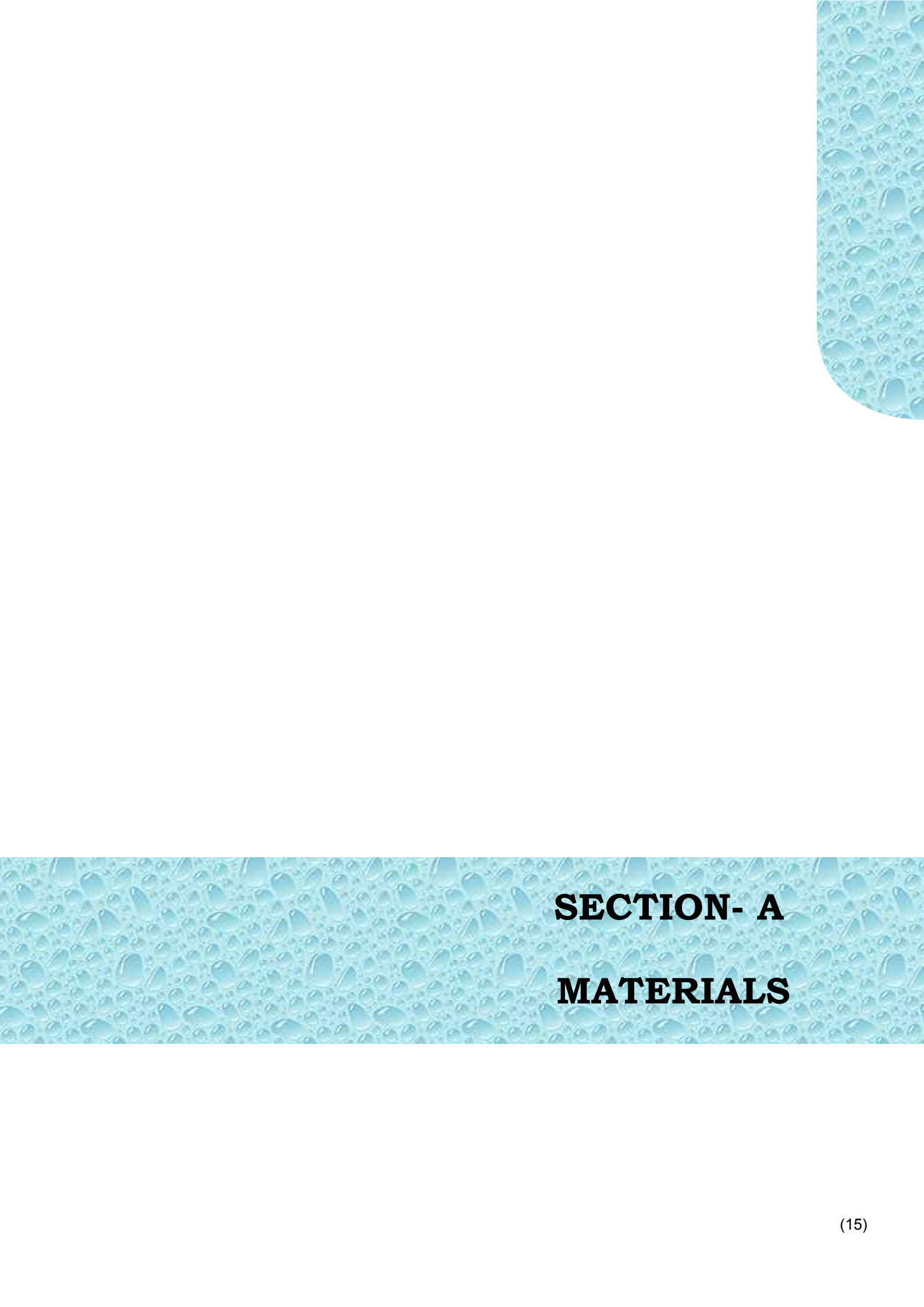
32) As per Govt. circular no DSR-1090/CR 6453/PLN3 Dtd. 14.07.1992. 1% for labour amenities is considered while arriving the rates.

33) As per Govt. in Industries and Power GR No. BCA 2009/CR 108/Labour 7A Dtd. 17.06.2010. 1% cess on labour welfare is considered while arriving the rates.

34) (1) Item of hydraulic testing should be measured separately, as per detail item in respective sub work.

(2) In case of water Supplied by the MJP, amount of Water Supplied should be deducted from the Item of the hydraulic testing, with prevailing rates of Non Domestic (Bulk Supply)of the WSS, as per MJPs latest notification.



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SECTION- A

MATERIALS

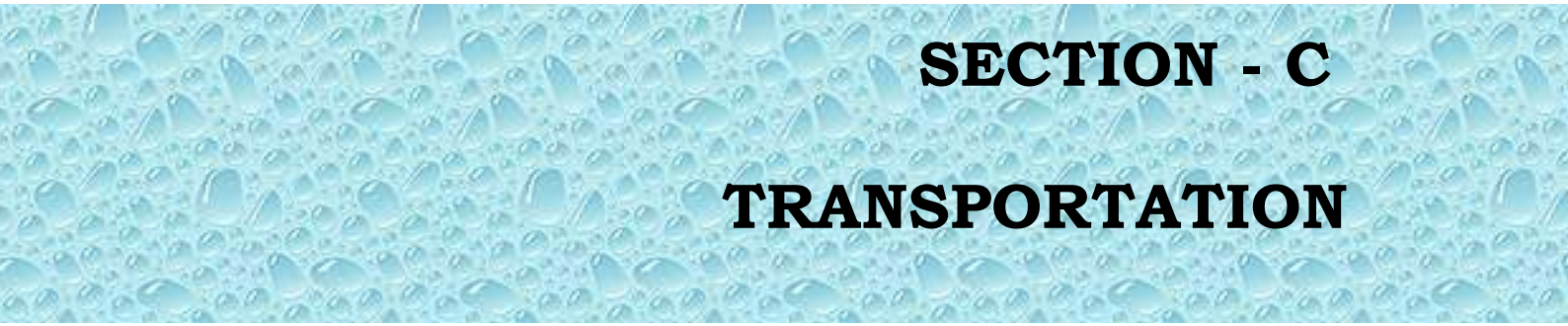
Sr. No	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	MATERIAL					
1	Acetylene Gas	No	715			
2	Alum Grade IV Ex-factory	MT	7926			
3	Binding Wire	Kg	63.26			
4	Black enamel paint Anti corrosive	Lit	174.91			
5	Bricks	No	5.8			
6	Bullies, Struts (125 mm dia 1.5 M long)	Rmt	178			
7	C.C.Teak wood planks(3" X 6")	Cum	67594			
8	Cement (Bags)	Bag	248.46			
9	Cement (M.T.)	MT	4969.17			
10	Cement Sulphar Resistant	MT	6450.45			
11	Charcoal	Kg	32.85			
12	Corrosion Resistant steel	MT	44072			
13	Diesel	Lit	61.07			
14	Epoxy paint	Kg	372.44			
15	Fuse	No	19			
16	Gun Powder	Kg	65			
17	Liquid chlorine 100 kg supplier Containor	No	2230			
18	Liquid chlorine 900 kg Deptt Containor	No	14275			
19	LubricantOil	lit	213.35			
20	M.S.angle(50x50x6mm)	Kg	42.1			
21	M.S.Bars (Delivery at site)	MT	38589.9			
22	M.S.Bars (in kgs)	Kg	39.2			
23	M.S.Flats (40 mm x 3 mm)	Kg	44.15			
24	M.S.plate	Kg	46.54			
25	Mild steelGrill ready	Kg	62			
26	Mildsteel grill railing	Kg	62			
27	Mobile oil	Lit	254.19			
28	Murum	cum	239.8			
29	Nails	Kg	66.85			
30	Nutbolts	Kg	79.1			
31	Oxygen Gas (Refill)	Cylinder	298			
32	Polling board	cum	15863			
33	Quarry spalls	cum	217			
34	R.S.Joist channel etc	MT	45937.8			
35	Rapid sand Gravity filter sand At Source (Godhara, Gokak, Kanhan, Yesagi sand)	Cum	1554			
36	Rapid sand Gravity filter Gravel At Source	Cum	1554			
37	Ready mixed lead/zinc paint	Lit	203.96			
38	Ready mix oil paint	Lit	203.96			
39	Ready mix primer for steel	Lit	203.96			
40	Rubber Gasket (6 mm thick)	Kg	85.5			
41	Sand	cum	1575			
42	Kasarde sand (for mortar lining work) @ source	cum	1744			
43	Spun Yarn	Kg	78.61			
44	Stone Aggregate 10 mm	cum	809.22			
45	Stone Aggregate 20 mm	cum	809.22			
46	Stone Aggregate 40 mm	cum	809.22			
47	Rubble (Stone at quarry)	cum	434			
48	Structural Steel	MT	43543			

Sr. No	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
49	T.C.L.(bleaching powder Gr.I) (5kg pack)	Kg				
50	T.C.L.(bleaching powder Gr.I) (10kg pack)	Kg				
51	T.C.L.(bleaching powder Gr.I) (25kg pack)	Kg	21			
52	Teak wood	Cum	62888			
53	Tor Steel	MT	43031			
54	Walling (100x100mm)	cum	14286.33			
55	Welding Rod Having weight 5.25 kg	Box	1157			
56	White cement	Kg	23.74			
57	White lead	Kg	144.38			
58	Wire	Kg	68			
59	Plywood Commercial 12 mm thick Waterproof for centering (Taken in analysis for RCC items only)	Sqm	441			
60	Coarse Sand	Cum	1050			
61	PAC Powder High Basacity	MT	28099.8			
62	PAC Powder High Basacity Liquid	MT	9595.89			
63	Ready mixed Synthetic Enamel paint	Lit	150			
64	Ready mixed Aluminium paint	Lit	263.88			

SECTION - B
LABOUR & MACHINERY

Sr. No	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>LABOUR AND MACHINERY</u>					
1	Asst Fitter	No.	512			
2	Bhandhani	No.	512			
3	Bhisti with pakahal	No.	512			
4	Blacksmith IInd class	No.	512			
5	Breaker	No.	512			
6	Carpainter 1st class	No.	539			
7	Carpainter 2nd class	No.	539			
8	Chiseller	No.	512			
9	Excavator	No.	493			
10	Fitter 1st class	No.	539			
11	Glazier	No.	539			
12	Helper	No.	493			
13	Hole Driller	No.	512			
14	Mason 1st class	No.	539			
15	Mason 2nd class	No.	539			
16	MAZDOOR (FEMALE)	No.	493			
17	Mazdoor(Heavy)	No.	493			
18	Mazdoor (Light)	No.	493			
19	MAZDOOR (MALE)	No.	493			
20	Maistry	No.	539			
21	Mukadam	No.	539			
22	Painter (for coloring)	No.	539			
23	Painter	No.	539			
24	Polisher	No.	539			
25	Pump Driver	No.	512			
26	StoneCutter or dresser	No.	539			
27	Tile layer	No.	539			
28	Welder	No.	539			
29	Welder for pipe line	No.	539			
30	WhiteWasher	No.	512			
31	TileTurner	No.	539			
32	L.M.V. Driver	No.	539			
33	Electrician	No.	539			
	<u>HIRE CHARGES OF MACHINERIES</u>					
1	Rent for polishing machine with crew	Day	355			
2	Rent for chain pully block with tripod	Day	549			
3	Rent for pump including operator & excluding fuel	BHP-Day	205			
4	Rent for Mech.Mixer with fuel & crew	Day	2938			
5	Rent for vibrator with fuel and crew	Day	961			
6	Plate Bender	Day	915			
7	Rent for welding set with Electric set	Day	1184			
8	Rent for welding set with Generator	Day	2583			
9	Rent for Compressor with fuel	Day	2373			
10	Rent for Concrete breaker & Compressor	Day	2529			
11	Rent for poclain	Hour	2373			
12	Rent for Crane	Hour	1357			
13	Rent for JCB	Hour	1243			
14	Truck hire charges upto 20 km	Day	2882			
15	Truck hire charges for 20 km to 50 km	Day	2549			
16	Truck hire charges for 50 km & above	Day	2272			
17	Pipe cutter with operator	Day	1413			

Sr. No	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
18	Desludging / Desilting mud Pump with Operator	Day	2712			
19	Jeep hire Charges with driver (Upto 300 Km)& fuel	Day	3492			
20	Plumber (Building/Pipeline)	Day	539			
21	Painter for epoxy paint	Day	539			

A decorative horizontal band with a blue water droplet pattern, spanning the width of the page.

SECTION - C

TRANSPORTATION

STATEMENT I									
									Rate (Rs.) 2019-2020
Sr. No.	Item of work	Unit	Collecting the railway receipt etc & unloading the consignment from railway wagon & keeping on railway platform consignment booked in.		Lifting the material from railway platform, loading Unloading into truck.		Loading the material into truck from departmental store or site of work.		Unloading the material from truck including stacking in departmental stores or site of work.
1	2	3	4		5		6		7
(A)	MANUAL HANDLING (Weight upto & including 300 kg.)								
1	C.I. / D.I. /M.S./H.D.P.E. pipes of all classes upto & including 200 mm dia. Pipes of any length.	M.T.	297.00		365.00		94.00		94.00
2	R.C.C. pipes of all classes upto & including 350 mm dia.	M.T.	297.00		365.00		94.00		94.00
3	A.C. pipes of all classes & dia.	M.T.	157.00		221.00		56.00		56.00
4	P.V.C. pipes of all classes & dia.	M.T.	157.00		221.00		56.00		56.00
5	All other materials such as C.I. Specials of individual weight upto 300 kg.	M.T.	297.00		365.00		94.00		94.00
6	Mild steel / for steel / R.S.J.	M.T.	187.00		253.00		141.00		141.00
7	Cement / bleaching powder / alum.	M.T.	91.00		137.00		70.00		70.00
(B)	CRANE HANDLING (Materials having individual weight above 300 kg.)								
1	C.I./D.I./B.W.S.C./ M.S./ R.C.C. pipes of all classes having individual weight more than 300 kg. & alsoother heavy materials, valves, machinery having individual weight more than 300 kg.	M.T.	201.00		254.00		181.00		181.00
	1)The above rates in col. 1 to 5 are applicable only for Railway clearance purpose and not for other carting.								
	2) The rates given in col. 6 to 7 shall be adopted for estimate purpose only, however actual quotations / D- tender will prevail.								
	3) Irrespective of supply of C.I./D.I. Pipes as per rate contract when pipes are directly supplied by the firms by road railway freight upto destination station and carting as per schedule from Railway Station to work site is allowed In such cases rate of Mathadi Kamgar shall not be applicable for carting and normal loading, unloading carting shall be allowed.								

STATEMENT II
Including loading, unloading and stacking

Lead in km L	Av. Speed S	No. of Trips(N)= 8/ ((2L/S) +1)	Km. Done (2NL+6)	Litres of diesel consumed	cost of diesel @ 61.07	Lit. of Mobile oil consumed	cost of M.Oil @ 254.19	cost of 6 mazdoor 493 /day	Hire charges of truck Rs Per day	Total cost (6+8+ 9+10)	Add 10% overhead charges	Total 11+12	cost per trip (13/3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
0.5	15	7.5	13.50	4.50	274.82	0.096	24.40	3327.75	2882.25	6509.22	650.92	7160.14	954.69
1	16	7.11	20.22	6.74	411.62	0.144	36.60	3327.75	2882.25	6658.22	665.82	7324.04	1030.1
1.5	16.5	6.77	26.31	8.77	535.6	0.188	47.79	3327.75	2882.25	6793.39	679.34	7472.73	1103.8
2	17	6.48	31.92	10.64	649.8	0.228	57.96	3327.75	2882.25	6917.76	691.78	7609.54	1174.31
2.5	17.25	6.2	37.00	12.33	753.01	0.264	67.11	3327.75	2882.25	7030.12	703.01	7733.13	1247.28
3	17.5	5.96	41.76	13.92	850.11	0.298	75.75	3327.75	2882.25	7135.86	713.59	7849.45	1317.02
3.5	17.75	5.74	46.18	15.39	939.89	0.330	83.88	3327.75	2882.25	7233.77	723.38	7957.15	1386.26
4	18	5.54	50.32	16.77	1024.17	0.359	91.25	3327.75	2882.25	7325.42	732.54	8057.96	1454.51
4.5	18.25	5.36	54.24	18.08	1104.17	0.387	98.37	3327.75	2882.25	7412.54	741.25	8153.79	1521.23
5	18.5	5.19	57.90	19.30	1178.68	0.414	105.23	3327.75	2882.25	7493.91	749.39	8243.30	1588.3
6	18.75	4.88	64.56	21.52	1314.26	0.461	117.18	3327.75	2882.25	7641.44	764.14	8405.58	1722.45
7	19	4.61	70.54	23.51	1435.79	0.504	128.11	3327.75	2882.25	7773.90	777.39	8551.29	1854.94
8	19.183	4.36	75.76	25.25	1542.05	0.541	137.52	3327.75	2882.25	7889.57	788.96	8678.53	1990.49
9	19.6	4.17	81.06	27.02	1650.15	0.579	147.18	3327.75	2882.25	8007.33	800.73	8808.06	2112.24
10	20	4	86.00	28.67	1750.92	0.614	156.07	3327.75	2882.25	8116.99	811.7	8928.69	2232.17
15	25	3.64	115.20	38.40	2345.14	0.823	209.20	3327.75	2882.25	8764.34	876.43	9640.77	2648.56
20	25	3.08	129.20	43.07	2630.35	0.923	234.62	3327.75	2882.25	9074.97	907.5	9982.47	3241.06
25	25	2.67	139.50	46.50	2839.82	0.996	253.17	3327.75	2549.40	8970.14	897.01	9867.15	3695.56
30	25	2.35	147.00	49.00	2992.5	1.050	266.90	3327.75	2549.40	9136.55	913.66	10050.21	4276.69
35	30	2.4	174.00	58.00	3542.14	1.243	315.96	3327.75	2549.40	9735.25	973.53	10708.78	4461.99
40	30	2.18	180.40	60.13	3672.23	1.289	327.65	3327.75	2549.40	9877.03	987.7	10864.73	4983.82
45	30	2	186.00	62.00	3786.43	1.329	337.82	3327.75	2549.40	10001.40	1000.14	11001.54	5500.77
50	30	1.85	191.00	63.67	3888.42	1.364	346.72	3327.75	2549.40	10112.29	1011.23	11123.52	6012.71
60	30	1.6	198.00	66.00	4030.71	1.414	359.42	3327.75	2272.20	9990.08	999.01	10989.09	6868.18
70	30	1.41	203.40	67.80	4140.64	1.453	369.34	3327.75	2272.20	10109.93	1010.99	11120.92	7887.18
80	30	1.26	207.60	69.20	4226.14	1.483	376.96	3327.75	2272.20	10203.05	1020.31	11223.36	8907.43
90	30	1.14	211.20	70.40	4299.43	1.509	383.57	3327.75	2272.20	10282.95	1028.3	11311.25	9922.15
100	40	1.33	272.00	90.67	5537.35	1.943	493.89	3327.75	2272.20	11631.19	1163.12	12794.31	9619.78
125	40	1.1	281.00	93.67	5720.56	2.007	510.16	3327.75	2272.20	11830.67	1183.07	13013.74	11830.67
150	40	0.94	288.00	96.00	5862.86	2.057	522.87	3128.09	2272.20	11786.02	1178.6	12964.62	13792.15
175	40	0.82	293.00	97.67	5964.85	2.093	532.02	2728.76	2272.20	11497.83	1149.78	12647.61	15423.91
200	40	0.73	298.00	99.33	6066.23	2.129	541.17	2429.26	2272.20	11308.86	1130.89	12439.75	17040.75

SECTION - C : TRANSPORTATION

(27)

Lead in km L	Av. Speed S	No. of Trips(N)= 8/ ((2L/S) +1)	Km. Done (2NL+6)	Litres of diesel consumed	cost of diesel @ 61.07	Lit. of Mobile oil consumed	cost of M.Oil @ 254.19	cost of 6 mazdoor 493.00 /day	Hire charges of truck Rs Per day	Total cost (6+8+ 9+10)	Add 10% overhead charges	Total 11+12	cost per trip (13/3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
250	40	0.59	301.00	100.33	6127.3	2.150	546.51	1963.37	2272.20	10909.38	1090.94	12000.32	20339.53
300	45	0.56	342.00	114.00	6962.14	2.443	620.99	1863.54	2272.20	11718.87	1171.89	12890.76	23019.21
420	45	0.41	350.40	116.80	7133.14	2.503	636.24	1364.38	2272.20	11405.96	1140.6	12546.56	30601.37
540	45	0.32	351.60	117.20	7157.57	2.511	638.27	1064.88	2272.20	11132.92	1113.29	12246.21	38269.41
660	45	0.26	349.20	116.40	7108.71	2.494	633.95	865.22	2272.20	10880.08	1088.01	11968.09	46031.12
780	45	0.22	349.20	116.40	7108.71	2.494	633.95	732.11	2272.20	10746.97	1074.7	11821.67	53734.86
900	45	0.2	366.00	122.00	7450.71	2.614	664.45	665.55	2272.20	11052.91	1105.29	12158.20	60791.00
1020	45	0.17	352.80	117.60	7182	2.520	640.56	565.72	2272.20	10660.48	1066.05	11726.53	68979.59
1140	45	0.15	348.00	116.00	7084.29	2.486	631.92	499.16	2272.20	10487.57	1048.76	11536.33	76908.87

- Note:
- 1) No. of trips in a working of 8 hours $N=8 / (2(L+S) + 1)$ where L = Lead in km and S = speed, 1 hour is allowed for loading
 - 2) Consumption of diesel taken as 3 km / litre
 - 3) Consumption of Mobile oil taken as 140 km / litre
 - 4) In col. 4, 6 hours has been added for movement from parking place to duty and back
 - 5) Hire charges will remain Rs. 500.00 for 1200 and above km lead
 - 6) Labour required for loading unloading and stacking after the No. of trips reduced below 1 is factorised with actual number of trip.

STATEMENT III
Excluding loading, unloading and stacking

Lead in km	Av. Speed	No. of Trips(N)= 8/ ((2L/S)+1)	Km. Done (2NL+6)	Litres of diesel consumed	cost of diesel @ 61.07	Lit. of Mobile oil consumed	cost of M.Oil @ 254.19	cost of 6 mazdoor @ 493 /day	Hire charges of truck Rs Per day	Total cost (6+8+ 9+10)	Add 10% overhead charges	Total 11+12	cost per trip (13/3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
0.5	15	7.5	13.50	4.50	274.82	0.096	24.40	0	2882.25	3181.47	318.15	3499.62	466.62
1	16	7.11	20.22	6.74	411.62	0.144	36.60	0	2882.25	3330.47	333.05	3663.52	515.26
1.5	16.5	6.77	26.31	8.77	535.6	0.188	47.79	0	2882.25	3465.64	346.56	3812.20	563.1
2	17	6.48	31.92	10.64	649.8	0.228	57.96	0	2882.25	3590.01	359	3949.01	609.42
2.5	17.25	6.2	37.00	12.33	753.01	0.264	67.11	0	2882.25	3702.37	370.24	4072.61	656.87
3	17.5	5.96	41.76	13.92	850.11	0.298	75.75	0	2882.25	3808.11	380.81	4188.92	702.84
3.5	17.75	5.74	46.18	15.39	939.89	0.330	83.88	0	2882.25	3906.02	390.6	4296.62	748.54
4	18	5.54	50.32	16.77	1024.17	0.359	91.25	0	2882.25	3997.67	399.77	4397.44	793.76
4.5	18.25	5.36	54.24	18.08	1104.17	0.387	98.37	0	2882.25	4084.79	408.48	4493.27	838.3
5	18.5	5.19	57.90	19.30	1178.68	0.414	105.23	0	2882.25	4166.16	416.62	4582.78	883
6	18.75	4.88	64.56	21.52	1314.26	0.461	117.18	0	2882.25	4313.69	431.37	4745.06	972.35
7	19	4.61	70.54	23.51	1435.79	0.504	128.11	0	2882.25	4446.15	444.62	4890.77	1060.9
8	19.183	4.36	75.76	25.25	1542.05	0.541	137.52	0	2882.25	4561.82	456.18	5018.00	1150.92
9	19.6	4.17	81.06	27.02	1650.15	0.579	147.18	0	2882.25	4679.58	467.96	5147.54	1234.42
10	20	4	86.00	28.67	1750.92	0.614	156.07	0	2882.25	4789.24	478.92	5268.16	1317.04
15	25	3.64	115.20	38.40	2345.14	0.823	209.20	0	2882.25	5436.59	543.66	5980.25	1642.93
20	25	3.08	129.20	43.07	2630.35	0.923	234.62	0	2882.25	5747.22	574.72	6321.94	2052.58
25	25	2.67	139.50	46.50	2839.82	0.996	253.17	0	2549.40	5642.39	564.24	6206.63	2324.58
30	25	2.35	147.00	49.00	2992.5	1.050	266.90	0	2549.40	5808.80	580.88	6389.68	2719.01
35	30	2.4	174.00	58.00	3542.14	1.243	315.96	0	2549.40	6407.50	640.75	7048.25	2936.77
40	30	2.18	180.40	60.13	3672.23	1.289	327.65	0	2549.40	6549.28	654.93	7204.21	3304.68
45	30	2	186.00	62.00	3786.43	1.329	337.82	0	2549.40	6673.65	667.37	7341.02	3670.51
50	30	1.85	191.00	63.67	3888.42	1.364	346.72	0	2549.40	6784.54	678.45	7462.99	4034.05
55	30	1.71	194.10	64.70	3951.32	1.386	352.31	0	2272.20	6575.83	657.58	7233.41	4230.06
65	30	1.5	201.00	67.00	4091.79	1.436	365.02	0	2272.20	6729.01	672.9	7401.91	4934.61
75	30	1.33	205.50	68.50	4183.39	1.468	373.15	0	2272.20	6828.74	682.87	7511.61	5647.83
85	30	1.2	210.00	70.00	4275	1.500	381.29	0	2272.20	6928.49	692.85	7621.34	6351.12
95	40	1.39	270.10	90.03	5498.26	1.929	490.33	0	2272.20	8260.79	826.08	9086.87	6537.32
105	40	1.28	274.80	91.60	5594.14	1.963	498.97	0	2272.20	8365.31	836.53	9201.84	7188.94
130	40	1.07	284.20	94.73	5785.3	2.030	516.01	0	2272.20	8573.51	857.35	9430.86	8813.89
155	40	0.91	288.10	96.03	5864.69	2.058	523.12	0	2272.20	8660.01	866	9526.01	10468.14
180	40	0.8	294.00	98.00	5985	2.100	533.80	0	2272.20	8791.00	879.1	9670.10	12087.63
230	40	0.64	300.40	100.13	6115.08	2.146	545.49	0	2272.20	8932.77	893.28	9826.05	15353.2
280	45	0.6	342.00	114.00	6962.14	2.443	620.99	0	2272.20	9855.33	985.53	10840.86	18068.1

SECTION - C : TRANSPORTATION

(29)

Lead in km	Av. Speed	No. of Trips(N)= 8/ ((2L/S) +1)	Km. Done (2NL+6)	Litres of diesel cons umed	cost of diesel @ 61.07	Lit. of Mobile oil con- sumed	cost of M.Oil @ 254.19	cost of 6 mazdoor @ 493 /day	Hire charges of truck Rs Per day	Total cost (6+8+ 9+10)	Add 10% overhead charges	Total 11+12	cost per trip (13/3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
400	45	0.43	350.00	116.67	7125.2	2.500	635.48	0	2272.20	10032.88	1003.29	11036.17	25665.51
520	45	0.33	349.20	116.40	7108.71	2.494	633.95	0	2272.20	10014.86	1001.49	11016.35	33382.88
640	45	0.27	351.60	117.20	7157.57	2.511	638.27	0	2272.20	10068.04	1006.8	11074.84	41017.93
760	45	0.23	355.60	118.53	7238.8	2.540	645.64	0	2272.20	10156.64	1015.66	11172.30	48575.22
880	45	0.2	358.00	119.33	7287.65	2.557	649.96	0	2272.20	10209.81	1020.98	11230.79	56153.95
1000	45	0.18	366.00	122.00	7450.71	2.614	664.45	0	2272.20	10387.36	1038.74	11426.10	63478.33
1120	45	0.16	364.40	121.47	7418.35	2.603	661.66	0	2272.20	10352.21	1035.22	11387.43	71171.44

STATEMENT VI
Including loading, unloading and stacking

Lead in km	Cost / trip	Lime murum building rubbish	Earth	Manure or sludge	Excavated rock	Sand stone aggregate 40 mm & below	Aggregate 40 mm & above	Soling stone	Concrete block (form)	Timber
1	2	3	4	5	6	7	8	9	10	11
	Pay load	6.0 cum	4.8 cum	5.52 cum	3.0 cum	5.75 cum	5.5 cum	4.7 cum	6.0 cum	5.0 cum
0.5	954.69	159.12	198.89	172.95	318.23	166.03	173.58	203.13	159.12	166.03
1	1030.10	171.68	214.6	186.61	343.37	179.15	187.29	219.17	171.68	179.15
1.5	1103.80	183.97	229.96	199.96	367.93	191.97	200.69	234.85	183.97	191.97
2	1174.31	195.72	244.65	212.74	391.44	204.23	213.51	249.85	195.72	204.23
2.5	1247.28	207.88	259.85	225.96	415.76	216.92	226.78	265.38	207.88	216.92
3	1317.02	219.5	274.38	238.59	439.01	229.05	239.46	280.22	219.50	229.05
3.5	1386.26	231.04	288.8	251.13	462.09	241.09	252.05	294.95	231.04	241.09
4	1454.51	242.42	303.02	263.50	484.84	252.96	264.46	309.47	242.42	252.96
4.5	1521.23	253.54	316.92	275.59	507.08	264.56	276.59	323.67	253.54	264.56
5	1588.30	264.72	330.9	287.74	529.43	276.23	288.78	337.94	264.72	276.23
6	1722.45	287.08	358.84	312.04	574.15	299.56	313.17	366.48	287.08	299.56
7	1854.94	309.16	386.45	336.04	618.31	322.60	337.26	394.67	309.16	322.60
8	1990.49	331.75	414.69	360.60	663.50	346.17	361.91	423.51	331.75	346.17
9	2112.24	352.04	440.05	382.65	704.08	367.35	384.04	449.41	352.04	367.35
10	2232.17	372.03	465.04	404.38	744.06	388.20	405.85	474.93	372.03	388.20
15	2648.56	441.43	551.78	479.81	882.85	460.62	481.56	563.52	441.43	460.62
20	3241.06	540.18	675.22	587.15	1080.35	563.66	589.28	689.59	540.18	563.66
25	3695.56	615.93	769.91	669.49	1231.85	642.71	671.92	786.29	615.93	642.71
30	4276.69	712.78	890.98	774.76	1425.56	743.77	777.58	909.93	712.78	743.77
35	4461.99	743.67	929.58	808.33	1487.33	776.00	811.27	949.36	743.67	776.00
40	4983.82	830.64	1038.3	902.87	1661.27	866.75	906.15	1060.39	830.64	866.75
45	5500.77	916.8	1145.99	996.52	1833.59	956.66	1000.14	1170.38	916.80	956.66
50	6012.71	1002.12	1252.65	1089.26	2004.24	1045.69	1093.22	1279.30	1002.12	1045.69
60	6868.18	1144.7	1430.87	1244.24	2289.39	1194.47	1248.76	1461.31	1144.70	1194.47
70	7887.18	1314.53	1643.16	1428.84	2629.06	1371.68	1434.03	1678.12	1314.53	1371.68
80	8907.43	1484.57	1855.71	1613.66	2969.14	1549.12	1619.53	1895.20	1484.57	1549.12
90	9922.15	1653.69	2067.11	1797.49	3307.38	1725.59	1804.03	2111.10	1653.69	1725.59
100	9619.78	1603.3	2004.12	1742.71	3206.59	1673.01	1749.05	2046.76	1603.30	1673.01
125	11830.67	1971.78	2464.72	2143.24	3943.56	2057.51	2151.03	2517.16	1971.78	2057.51
150	13792.15	2298.69	2873.36	2498.58	4597.38	2398.63	2507.66	2934.50	2298.69	2398.63

Lead in km	Cost / trip	Lime murum building rubbish	Earth	Manure or sludge	Excavated rock	Sand stone aggregate 40 mm & below	Aggregate 40 mm & above	Soling stone	Concrete block (form)	Timber
1	2	3	4	5	6	7	8	9	10	11
	Pay load	6.0 cum	4.8 cum	5.52 cum	3.0 cum	5.75 cum	5.5 cum	4.7 cum	6.0 cum	5.0 cum
175	15423.91	2570.65	3213.31	2794.19	5141.30	2682.42	2804.35	3281.68	2570.65	2682.42
200	17040.75	2840.13	3550.16	3087.09	5680.25	2963.61	3098.32	3625.69	2840.13	2963.61
250	20339.53	3389.92	4237.4	3684.70	6779.84	3537.31	3698.10	4327.56	3389.92	3537.31
300	23019.21	3836.54	4795.67	4170.15	7673.07	4003.34	4185.31	4897.70	3836.54	4003.34
420	30601.37	5100.23	6375.29	5543.73	10200.46	5321.98	5563.89	6510.93	5100.23	5321.98
540	38269.41	6378.24	7972.79	6932.86	12756.47	6655.55	6958.07	8142.43	6378.24	6655.55
660	46031.12	7671.85	9589.82	8338.97	15343.71	8005.41	8369.29	9793.86	7671.85	8005.41
780	53734.86	8955.81	11194.76	9734.58	17911.62	9345.19	9769.97	11432.95	8955.81	9345.19
900	60791.00	10131.83	12664.79	11012.86	20263.67	10572.35	11052.91	12934.26	10131.83	10572.35
1020	68979.59	11496.6	14370.75	12496.30	22993.20	11996.45	12541.74	14676.51	11496.60	11996.45
1140	76908.87	12818.15	16022.68	13932.77	25636.29	13375.46	13983.43	16363.59	12818.15	13375.46

STATEMENT VII
Including loading, unloading and stacking

Lead in km	Cost / trip	Cement stone block, GI CI CC AC Pipes below 120 mm dia	Tar bitumenn Asphalt roofing felt & Flooring Asphalt etc.	Steam coal	Matting thatching bambu ceiling board rubber PVC pipes fittings	Sheet & plate glass in packs Paints & Distempers AC Sheets & fittings iron fittings and iron sheets	Bricks modular bricks & Traditional bricks	Tiles half round tiles & Roofing tiles cement flooring tiles	Glass blocks (hollow) 200x200 x120 mm	Empty cement bags
1	2	3	4	5	6	7	8	9	10	11
	Pay load	7.0 Mt	4.5 MT	5.5 MT	3.0 MT	7.0 MT	3500 No.	3200 No.	1000 No.	2000 No.
		per 1 M.T.	per 1 M.T.	per 1 M.T.	per 1 M.T.	per 1 M.T.	per 1000 Nos	per 1000 Nos.	per 1000 Nos.	per 1000 Nos.
0.5	954.69	136.38	212.15	173.58	318.23	136.38	272.77	298.34	95.47	477.35
1	1030.10	147.16	228.91	187.29	343.37	147.16	294.31	321.91	103.01	515.05
1.5	1103.80	157.69	245.29	200.69	367.93	157.69	315.37	344.94	110.38	551.90
2	1174.31	167.76	260.96	213.51	391.44	167.76	335.52	366.97	117.43	587.16
2.5	1247.28	178.18	277.17	226.78	415.76	178.18	356.37	389.78	124.73	623.64
3	1317.02	188.15	292.67	239.46	439.01	188.15	376.29	411.57	131.70	658.51
3.5	1386.26	198.04	308.06	252.05	462.09	198.04	396.07	433.21	138.63	693.13
4	1454.51	207.79	323.22	264.46	484.84	207.79	415.57	454.53	145.45	727.26
4.5	1521.23	217.32	338.05	276.59	507.08	217.32	434.64	475.38	152.12	760.62
5	1588.30	226.90	352.96	288.78	529.43	226.90	453.80	496.34	158.83	794.15
6	1722.45	246.06	382.77	313.17	574.15	246.06	492.13	538.27	172.25	861.23
7	1854.94	264.99	412.21	337.26	618.31	264.99	529.98	579.67	185.49	927.47
8	1990.49	284.36	442.33	361.91	663.50	284.36	568.71	622.03	199.05	995.25
9	2112.24	301.75	469.39	384.04	704.08	301.75	603.50	660.08	211.22	1056.12
10	2232.17	318.88	496.04	405.85	744.06	318.88	637.76	697.55	223.22	1116.09
15	2648.56	378.37	588.57	481.56	882.85	378.37	756.73	827.68	264.86	1324.28
20	3241.06	463.01	720.24	589.28	1080.35	463.01	926.02	1012.83	324.11	1620.53
25	3695.56	527.94	821.24	671.92	1231.85	527.94	1055.87	1154.86	369.56	1847.78
30	4276.69	610.96	950.38	777.58	1425.56	610.96	1221.91	1336.47	427.67	2138.35
35	4461.99	637.43	991.55	811.27	1487.33	637.43	1274.85	1394.37	446.20	2231.00
40	4983.82	711.97	1107.52	906.15	1661.27	711.97	1423.95	1557.44	498.38	2491.91
45	5500.77	785.82	1222.39	1000.14	1833.59	785.82	1571.65	1718.99	550.08	2750.39
50	6012.71	858.96	1336.16	1093.22	2004.24	858.96	1717.92	1878.97	601.27	3006.36

Lead in km	Cost / trip	Cement stone block, GI CI CC AC Pipes below 120 mm dia	Tar bitumenn Asphalt roofing felt & Flooring Asphalt etc.	Steam coal	Matting thatching bambu ceiling board rubber PVC pipes fittings	Sheet & plate glass in packs Paints & Distempers AC Sheets & fittings iron fittings and iron sheets	Bricks modular bricks & Traditional bricks	Tiles half round tiles & Roofing tiles cement flooring tiles	Glass blocks (hollow) 200x200 x120 mm	Empty cement bags
1	2	3	4	5	6	7	8	9	10	11
	Pay load	7.0 Mt	4.5 MT	5.5 MT	3.0 MT	7.0 MT	3500 No.	3200 No.	1000 No.	2000 No.
		per 1 M.T.	per 1 M.T.	per 1 M.T.	per 1 M.T.	per 1 M.T.	per 1000 Nos	per 1000 Nos.	per 1000 Nos.	per 1000 Nos.
60	6868.18	981.17	1526.26	1248.76	2289.39	981.17	1962.34	2146.31	686.82	3434.09
70	7887.18	1126.74	1752.71	1434.03	2629.06	1126.74	2253.48	2464.74	788.72	3943.59
80	8907.43	1272.49	1979.43	1619.53	2969.14	1272.49	2544.98	2783.57	890.74	4453.72
90	9922.15	1417.45	2204.92	1804.03	3307.38	1417.45	2834.90	3100.67	992.22	4961.08
100	9619.78	1374.25	2137.73	1749.05	3206.59	1374.25	2748.51	3006.18	961.98	4809.89
125	11830.67	1690.10	2629.04	2151.03	3943.56	1690.10	3380.19	3697.08	1183.07	5915.34
150	13792.15	1970.31	3064.92	2507.66	4597.38	1970.31	3940.61	4310.05	1379.22	6896.08
175	15423.91	2203.42	3427.54	2804.35	5141.30	2203.42	4406.83	4819.97	1542.39	7711.96
200	17040.75	2434.39	3786.83	3098.32	5680.25	2434.39	4868.79	5325.23	1704.08	8520.38
250	20339.53	2905.65	4519.90	3698.10	6779.84	2905.65	5811.29	6356.10	2033.95	10169.77
300	23019.21	3288.46	5115.38	4185.31	7673.07	3288.46	6576.92	7193.50	2301.92	11509.61
420	30601.37	4371.62	6800.30	5563.89	10200.46	4371.62	8743.25	9562.93	3060.14	15300.69
540	38269.41	5467.06	8504.31	6958.07	12756.47	5467.06	10934.12	11959.19	3826.94	19134.71
660	46031.12	6575.87	10229.14	8369.29	15343.71	6575.87	13151.75	14384.73	4603.11	23015.56
780	53734.86	7676.41	11941.08	9769.97	17911.62	7676.41	15352.82	16792.14	5373.49	26867.43
900	60791.00	8684.43	13509.11	11052.91	20263.67	8684.43	17368.86	18997.19	6079.10	30395.50
1020	68979.59	9854.23	15328.80	12541.74	22993.20	9854.23	19708.45	21556.12	6897.96	34489.80
1140	76908.87	10986.98	17090.86	13983.43	25636.29	10986.98	21973.96	24034.02	7690.89	38454.44

STATEMENT VIII
Including loading, unloading and stacking

Lead in km	Cost / trip	R.C.C. STEEL CYLINDER, R.C PIPES, C.I. PIPES,, UNREINFORCED CEMENT PIPES, PRECAST COCRETE PIPES										
		100 mm	125 mm	150 mm	200 mm	250 mm	300 mm	300 & 400 mm	450 & 500 mm	600, 700 & 750 mm	800, 900 & 1000 mm	1200 & 1800 MM
	Pay load in Rmt	292.8	219.6	183	109.8	80.52	62.22	54.9	29.28	18.183	15	5
1	2	3	4	5	6	7	8	9	10	11	12	13
UNIT PER 100 RMT												
0.5	954.69	326.06	434.74	521.69	869.48	1185.66	1534.38	1738.96	3260.55	5216.89	6364.6	19093.8
1	1030.1	351.81	469.08	562.9	938.16	1279.31	1655.58	1876.32	3518.1	5628.96	6867.33	20602
1.5	1103.8	376.98	502.64	603.17	1005.28	1370.84	1774.03	2010.56	3769.81	6031.69	7358.67	22076
2	1174.31	401.06	534.75	641.7	1069.5	1458.41	1887.35	2139	4010.62	6416.99	7828.73	23486.2
2.5	1247.28	425.98	567.98	681.57	1135.96	1549.03	2004.63	2271.91	4259.84	6815.74	8315.2	24945.6
3	1317.02	449.8	599.74	719.68	1199.47	1635.64	2116.71	2398.94	4498.02	7196.83	8780.13	26340.4
3.5	1386.26	473.45	631.27	757.52	1262.53	1721.63	2228	2525.06	4734.49	7575.19	9241.73	27725.2
4	1454.51	496.76	662.35	794.81	1324.69	1806.4	2337.69	2649.38	4967.59	7948.14	9696.73	29090.2
4.5	1521.23	519.55	692.73	831.27	1385.46	1889.26	2444.92	2770.91	5195.46	8312.73	10141.53	30424.6
5	1588.3	542.45	723.27	867.92	1446.54	1972.55	2552.72	2893.08	5424.52	8679.23	10588.67	31766
6	1722.45	588.27	784.36	941.23	1568.72	2139.16	2768.32	3137.43	5882.68	9412.3	11483	34449
7	1854.94	633.52	844.69	1013.63	1689.38	2303.7	2981.26	3378.76	6335.18	10136.28	12366.27	37098.8
8	1990.49	679.81	906.42	1087.7	1812.83	2472.04	3199.12	3625.66	6798.12	10876.99	13269.93	39809.8
9	2112.24	721.39	961.86	1154.23	1923.72	2623.25	3394.79	3847.43	7213.93	11542.3	14081.6	42244.8
10	2232.17	762.35	1016.47	1219.77	2032.94	2772.19	3587.54	4065.88	7623.53	12197.65	14881.13	44643.4
15	2648.56	904.56	1206.08	1447.3	2412.17	3289.32	4256.77	4824.34	9045.63	14473.01	17657.07	52971.2
20	3241.06	1106.92	1475.89	1771.07	2951.79	4025.16	5209.03	5903.57	11069.19	17710.71	21607.07	64821.2
25	3695.56	1262.14	1682.86	2019.43	3365.72	4589.62	5939.5	6731.44	12621.45	20194.32	24637.07	73911.2
30	4276.69	1460.62	1947.49	2336.99	3894.98	5311.34	6873.5	7789.96	14606.18	23369.89	28511.27	85533.8
35	4461.99	1523.9	2031.87	2438.25	4063.74	5541.47	7171.31	8127.49	15239.04	24382.46	29746.6	89239.8
40	4983.82	1702.12	2269.5	2723.4	4539	6189.54	8010	9078	17021.24	27233.99	33225.47	99676.4
45	5500.77	1878.68	2504.9	3005.89	5009.81	6831.56	8840.84	10019.62	18786.78	30058.85	36671.8	110015.4
50	6012.71	2053.52	2738.03	3285.63	5476.06	7467.35	9663.63	10952.11	20535.21	32856.34	40084.73	120254.2
60	6868.18	2345.69	3127.59	3753.1	6255.17	8529.78	11038.54	12510.35	23456.9	37531.04	45787.87	137363.6
70	7887.18	2693.71	3591.61	4309.93	7183.22	9795.31	12676.28	14366.45	26937.09	43099.34	52581.2	157743.6
80	8907.43	3042.16	4056.21	4867.45	8112.41	11062.38	14316.02	16224.83	30421.55	48674.48	59382.87	178148.6

Lead in km	Cost / trip	R.C.C. STEEL CYLINDER, R.C PIPES, C.I. PIPES,, UNREINFORCED CEMENT PIPES, PRECAST COCRETE PIPES										
		100 mm	125 mm	150 mm	200 mm	250 mm	300 mm	300 & 400 mm	450 & 500 mm	600, 700 & 750 mm	800, 900 & 1000 mm	1200 & 1800 MM
	Pay load in Rmt	292.8	219.6	183	109.8	80.52	62.22	54.9	29.28	18.183	15	5
1	2	3	4	5	6	7	8	9	10	11	12	13
90	9922.15	3388.71	4518.28	5421.94	9036.57	12322.59	15946.88	18073.13	33887.12	54219.4	66147.67	198443
100	9619.78	3285.44	4380.59	5256.71	8761.18	11947.07	15460.91	17522.37	32854.44	52567.1	64131.87	192395.6
125	11830.67	4040.53	5387.37	6464.85	10774.74	14692.83	19014.26	21549.49	40405.29	64648.47	78871.13	236613.4
150	13792.15	4710.43	6280.58	7536.69	12561.16	17128.85	22166.75	25122.31	47104.34	75366.94	91947.67	275843
175	15423.91	5267.73	7023.64	8428.37	14047.28	19155.38	24789.31	28094.55	52677.29	84283.66	102826.07	308478.2
200	17040.75	5819.93	7759.9	9311.89	15519.81	21163.38	27387.9	31039.62	58199.28	93118.85	113605	340815
250	20339.53	6946.56	9262.08	11114.5	18524.16	25260.22	32689.7	37048.32	69465.61	111144.97	135596.87	406790.6
300	23019.21	7861.75	10482.34	12578.8	20964.67	28588.19	36996.48	41929.34	78617.52	125788.03	153461.4	460384.2
420	30601.37	10451.29	13935.05	16722.06	27870.1	38004.68	49182.53	55740.2	104512.88	167220.6	204009.13	612027.4
540	38269.41	13070.15	17426.87	20912.25	34853.74	47527.83	61506.61	69707.49	130701.54	209122.46	255129.4	765388.2
660	46031.12	15721.01	20961.35	25153.62	41922.7	57167.31	73981.23	83845.39	157210.11	251536.17	306874.13	920622.4
780	53734.86	18352.07	24469.43	29363.31	48938.85	66734.8	86362.68	97877.7	183520.7	293633.11	358232.4	1074697.2
900	60791	20761.95	27682.6	33219.13	55365.21	75498.01	97703.31	110730.42	207619.54	332191.26	405273.33	1215820
1020	68979.59	23558.6	31411.47	37693.77	62822.94	85667.65	110864.01	125645.88	235586.03	376937.65	459863.93	1379591.8
1140	76908.87	26266.69	35022.25	42026.7	70044.51	95515.24	123607.96	140089.02	262666.91	420267.05	512725.8	1538177.4

STATEMENT IV
Including loading, unloading and stacking

Lead in km	Cost per trip	Cement pay load 9.00 MT	Steel pay load 9.00 MT	Bulk Asphalt in Bouzer pay load 4.50 MT	M.S.Bar 9.0 MT	Sand 5.75 cum
1	2	3	4	5	6	7
0.5	954.69	106.08	106.08	212.15	106.08	166.03
1	1030.1	114.46	114.46	228.91	114.46	179.15
1.5	1103.8	122.64	122.64	245.29	122.64	191.97
2	1174.31	130.48	130.48	260.96	130.48	204.23
2.5	1247.28	138.59	138.59	277.17	138.59	216.92
3	1317.02	138.59	138.59	277.17	146.34	229.05
3.5	1386.26	154.03	154.03	308.06	154.03	241.09
4	1454.51	161.61	161.61	323.22	161.61	252.96
4.5	1521.23	169.03	169.03	338.05	169.03	264.56
5	1588.3	176.48	176.48	352.96	176.48	276.23
6	1722.45	191.38	191.38	382.77	191.38	299.56
7	1854.94	206.10	206.10	412.21	206.10	322.60
8	1990.49	221.17	221.17	442.33	221.17	346.17
9	2112.24	234.69	234.69	469.39	234.69	367.35
10	2232.17	248.02	248.02	496.04	248.02	388.20
15	2648.56	294.28	294.28	588.57	294.28	460.62
20	3241.06	360.12	360.12	720.24	360.12	563.66
25	3695.56	410.62	410.62	821.24	410.62	642.71
30	4276.69	475.19	475.19	950.38	475.19	743.77
35	4461.99	495.78	495.78	991.55	495.78	776.00
40	4983.82	553.76	553.76	1107.52	553.76	866.75
45	5500.77	611.20	611.20	1222.39	611.20	956.66
50	6012.71	668.08	668.08	1336.16	668.08	1045.69
60	6868.18	763.13	763.13	1526.26	763.13	1194.47
70	7887.18	876.35	876.35	1752.71	876.35	1371.68
80	8907.43	989.71	989.71	1979.43	989.71	1549.12
90	9922.15	1102.46	1102.46	2204.92	1102.46	1725.59
100	9619.78	1068.86	1068.86	2137.73	1068.86	1673.01
125	11830.67	1314.52	1314.52	2629.04	1314.52	2057.51
150	13792.15	1532.46	1532.46	3064.92	1532.46	2398.63
175	15423.91	1713.77	1713.77	3427.54	1713.77	2682.42
200	17040.75	1893.42	1893.42	3786.83	1893.42	2963.61
250	20339.53	2259.95	2259.95	4519.90	2259.95	3537.31
300	23019.21	2557.69	2557.69	5115.38	2557.69	4003.34
420	30601.37	3400.15	3400.15	6800.30	3400.15	5321.98
540	38269.41	4252.16	4252.16	8504.31	4252.16	6655.55
660	46031.12	5114.57	5114.57	10229.14	5114.57	8005.41
780	53734.86	5970.54	5970.54	11941.08	5970.54	9345.19
900	60791	6754.56	6754.56	13509.11	6754.56	10572.35
1020	68979.59	7664.40	7664.40	15328.80	7664.40	11996.45
1140	76908.87	8545.43	8545.43	17090.86	8545.43	13375.46

STATEMENT V

Excluding loading, unloading and stacking

Lead in km	Cost per trip	Cement pay load 9.00 MT	Steel pay load 9.00 MT	Bulk Asphalt in Bouzer pay load 4.50 MT
1	2	3	4	5
0.5	466.62	51.85	51.85	103.69
1	515.26	57.25	57.25	114.50
1.5	563.1	62.57	62.57	125.13
2	609.42	67.71	67.71	135.43
2.5	656.87	72.99	72.99	145.97
3	702.84	72.99	72.99	145.97
3.5	748.54	83.17	83.17	166.34
4	793.76	88.20	88.20	176.39
4.5	838.3	93.14	93.14	186.29
5	883	98.11	98.11	196.22
6	972.35	108.04	108.04	216.08
7	1060.9	117.88	117.88	235.76
8	1150.92	127.88	127.88	255.76
9	1234.42	137.16	137.16	274.32
10	1317.04	146.34	146.34	292.68
15	1642.93	182.55	182.55	365.10
20	2052.58	228.06	228.06	456.13
25	2324.58	258.29	258.29	516.57
30	2719.01	302.11	302.11	604.22
35	2936.77	326.31	326.31	652.62
40	3304.68	367.19	367.19	734.37
45	3670.51	407.83	407.83	815.67
50	4034.05	448.23	448.23	896.46
55	4230.06	470.01	470.01	940.01
65	4934.61	548.29	548.29	1096.58
75	5647.83	627.54	627.54	1255.07
85	6351.12	705.68	705.68	1411.36
95	6537.32	726.37	726.37	1452.74
105	7188.94	798.77	798.77	1597.54
130	8813.89	979.32	979.32	1958.64
155	10468.14	1163.13	1163.13	2326.25
180	12087.63	1343.07	1343.07	2686.14
230	15353.2	1705.91	1705.91	3411.82
280	18068.1	2007.57	2007.57	4015.13
400	25665.51	2851.72	2851.72	5703.45
520	33382.88	3709.21	3709.21	7418.42
640	41017.93	4557.55	4557.55	9115.10
760	48575.22	5397.25	5397.25	10794.49
880	56153.95	6239.33	6239.33	12478.66
1000	63478.33	7053.15	7053.15	14106.30
1120	71171.44	7907.94	7907.94	15815.88

STATEMENT IX
Including loading, unloading and stacking
STONEWARE PIPES

Lead in km	Cost/trip	100 mm	150 mm	200 mm	230 mm	250 mm	300 mm	350 mm	400 mm
	Pay Load	480 m	240 m	135 m	105 m	84 m	66 m	43 m	27 m
1	2	3	4	5	6	7	8	9	10
Unit Per 100 Rmt									
0.5	954.69	198.89	397.79	707.18	909.23	1136.54	1446.5	2220.21	3535.89
1	1030.1	214.6	429.21	763.04	981.05	1226.31	1560.76	2395.58	3815.19
1.5	1103.8	229.96	459.92	817.63	1051.24	1314.05	1672.42	2566.98	4088.15
2	1174.31	244.65	489.3	869.86	1118.39	1397.99	1779.26	2730.95	4349.3
2.5	1247.28	259.85	519.7	923.91	1187.89	1484.86	1889.82	2900.65	4619.56
3	1317.02	274.38	548.76	975.57	1254.3	1567.88	1995.48	3062.84	4877.85
3.5	1386.26	288.8	577.61	1026.86	1320.25	1650.31	2100.39	3223.86	5134.3
4	1454.51	303.02	606.05	1077.41	1385.25	1731.56	2203.8	3382.58	5387.07
4.5	1521.23	316.92	633.85	1126.84	1448.79	1810.99	2304.89	3537.74	5634.19
5	1588.3	330.9	661.79	1176.52	1512.67	1890.83	2406.52	3693.72	5882.59
6	1722.45	358.84	717.69	1275.89	1640.43	2050.54	2609.77	4005.7	6379.44
7	1854.94	386.45	772.89	1374.03	1766.61	2208.26	2810.52	4313.81	6870.15
8	1990.49	414.69	829.37	1474.44	1895.7	2369.63	3015.89	4629.05	7372.19
9	2112.24	440.05	880.1	1564.62	2011.66	2514.57	3200.36	4912.19	7823.11
10	2232.17	465.04	930.07	1653.46	2125.88	2657.35	3382.08	5191.09	8267.3
15	2648.56	551.78	1103.57	1961.9	2522.44	3153.05	4012.97	6159.44	9809.48
20	3241.06	675.22	1350.44	2400.79	3086.72	3858.4	4910.7	7537.35	12003.93
25	3695.56	769.91	1539.82	2737.45	3519.58	4399.48	5599.33	8594.33	13687.26
30	4276.69	890.98	1781.95	3167.92	4073.04	5091.3	6479.83	9945.79	15839.59
35	4461.99	929.58	1859.16	3305.18	4249.51	5311.89	6760.59	10376.72	16525.89
40	4983.82	1038.3	2076.59	3691.72	4746.5	5933.12	7551.24	11590.28	18458.59
45	5500.77	1145.99	2291.99	4074.64	5238.83	6548.54	8334.5	12792.49	20373.22
50	6012.71	1252.65	2505.3	4453.86	5726.39	7157.99	9110.17	13983.05	22269.3
60	6868.18	1430.87	2861.74	5087.54	6541.12	8176.4	10406.33	15972.51	25437.7
70	7887.18	1643.16	3286.33	5842.36	7511.6	9389.5	11950.27	18342.28	29211.78
80	8907.43	1855.71	3711.43	6598.1	8483.27	10604.08	13496.11	20714.95	32990.48
90	9922.15	2067.11	4134.23	7349.74	9449.67	11812.08	15033.56	23074.77	36748.7
100	9619.78	2004.12	4008.24	7125.76	9161.7	11452.12	14575.42	22371.58	35628.81
125	11830.67	2464.72	4929.45	8763.46	11267.3	14084.13	17925.26	27513.19	43817.3
150	13792.15	2873.36	5746.73	10216.41	13135.38	16419.23	20897.2	32074.77	51082.04
175	15423.91	3213.31	6426.63	11425.12	14689.44	18361.8	23369.56	35869.56	57125.59
200	17040.75	3550.16	7100.31	12622.78	16229.29	20286.61	25819.32	39629.65	63113.89
250	20339.53	4237.4	8474.8	15066.32	19370.98	24213.73	30817.47	47301.23	75331.59
300	23019.21	4795.67	9591.34	17051.27	21923.06	27403.82	34877.59	53533.05	85256.33
420	30601.37	6375.29	12750.57	22667.68	29144.16	36430.2	46365.71	71165.98	113338.41
540	38269.41	7972.79	15945.59	28347.71	36447.06	45558.82	57983.95	88998.63	141738.56
660	46031.12	9589.82	19179.63	34097.13	43839.16	54798.95	69744.12	107049.12	170485.63
780	53734.86	11194.76	22389.53	39803.6	51176.06	63970.07	81416.45	124964.79	199018
900	60791	12664.79	25329.58	45030.37	57896.19	72370.24	92107.58	141374.42	225151.85
1020	68979.59	14370.75	28741.5	51095.99	65694.85	82118.56	104514.53	160417.65	255479.96
1140	76908.87	16022.68	32045.36	56969.53	73246.54	91558.18	116528.59	178857.84	284847.67

**STATEMENT SHOWING STANDARD WEIGHT OF PIPES TO BE FOLLOWED
FOR CARTING OF VARIOUS DIAMETERS AND TYPES OF PIPES**

I) C.I. Pipes (IS : 1536-1989)

Diameter of Pipe in mm	Class of Pipes and Its Weight in Kg. per Metre Length		
	LA	A	B
80	16.00	17.38	18.46
100	19.82	21.82	23.27
125	25.82	28.18	30.36
150	32.10	35.27	38.00
200	47.09	51.09	55.27
250	63.45	69.09	74.73
300	81.82	89.45	96.91
350	103.09	111.82	121.27
400	125.45	137.09	140.00
450	151.27	166.10	179.27
500	177.09	192.91	208.73
600	236.00	257.64	335.01
700	304.55	335.73	359.45
750	341.09	372.91	404.55
800	381.00	416.00	450.00
900	465.09	507.45	549.80
1000	558.73	610.36	659.64

II) M.S. Pipes

Note : Weight of M.S. Pipes is to be computed by considering density of steel as 7850 Kg./Cum considering the diameter and thickness of plate used for manufacturing of M.S. Pipes.

III) A.C. Pressure Pipes (ISO-160)

Diameter of Pipe in mm	Class of pipes and its weight in Kg. per meter length			
	Class - 5	Class – 10	Class - 15	Class - 20
80	6.00	6.20	6.40	6.80
100	7.60	7.70	8.20	10.30
125	9.57	9.80	11.00	13.30
150	11.87	12.20	15.30	19.00
200	15.57	19.30	25.60	32.70
250	19.25	25.20	32.70	41.50
300	24.97	32.30	45.10	58.10
350	39.77	47.52	55.27	71.42
400	49.20	60.20	71.36	93.10
450	56.92	70.27	83.63	111.37
500	72.84	89.54	104.25	136.52
600	102.50	137.32	148.35	193.16

IV) D.I. K-9 PIPES INCLUDING WEIGHT OF MORTAR LINING PER M LENGTH

(1) Barrel Mass as per IS-8329-1994 (2) Socket Mass as per IS-8329-1994 (3) Cement Mortar Lining Wt as per ISO-4179-1985

Nominal Diameter	Weight / M Length of D.I. K-9 Pipes of			
	4 M	5 M	5.50 M	6 M
80 mm wt. of DI pipe / M	13.00	13.00	12.91	12.67
Weight Mortar / M	1.56	1.56	1.56	1.56
Total Weight / M	14.56	14.56	14.47	14.23
100 mm wt. of DI pipe / M	16.25	16.00	16.00	15.86
Weight Mortar / M	1.93	1.93	1.93	1.93
Total Weight / M	18.18	17.93	17.93	17.79
125 mm wt. of DI pipe / M	20.50	20.00	20.00	19.83
Weight Mortar / M	2.42	2.42	2.42	2.42
Total Weight / M	22.92	22.42	22.42	22.25
150 mm wt. of DI pipe / M	24.75	24.20	24.18	24.00
Weight Mortar / M	2.90	2.90	2.90	2.90
Total Weight / M	27.65	27.10	27.08	26.90
200 mm wt. of DI pipe / M	33.25	32.60	32.54	32.33
Weight Mortar / M	3.88	3.88	3.88	3.88
Total Weight / M	37.13	36.48	36.42	36.21
250 mm wt. of DI pipe / M	43.75	43.00	42.73	42.50
Weight Mortar / M	4.84	4.84	4.84	4.84
Total Weight / M	48.59	47.84	47.57	47.34
300 mm wt. of DI pipe / M	55.50	54.60	54.18	53.83
Weight Mortar / M	5.80	5.80	5.80	5.80
Total Weight / M	61.30	60.40	59.98	59.63
350 mm wt. of DI pipe / M	69.25	68.00	67.45	67.17
Weight Mortar / M	12.12	12.12	12.12	12.12
Total Weight / M	81.37	80.12	79.57	79.29
400 mm wt. of DI pipe / M	82.75	81.40	80.91	80.33
Weight Mortar / M	13.82	13.82	13.82	13.82
Total Weight / M	96.57	95.22	94.73	94.15
450 mm wt. of DI pipe / M	98.75	97.00	96.36	95.83
Weight Mortar / M	15.53	15.53	15.53	15.53
Total Weight / M	114.28	112.53	111.89	111.36
500 mm wt. of DI pipe / M	115.00	112.80	112.00	111.50
Weight Mortar / M	17.26	17.26	17.26	17.26
Total Weight / M	132.26	130.06	129.26	128.76
600 mm wt. of DI pipe / M	152.00	149.00	147.82	147.00
Weight Mortar / M	20.75	20.75	20.75	20.75
Total Weight / M	172.75	169.73	168.57	167.75
700 mm wt. of DI pipe / M	193.75	189.80	188.36	187.70
Weight Mortar / M	29.45	29.45	29.45	29.45
Total Weight / M	223.20	219.25	217.81	211.15
750 mm wt. of DI pipe / M	217.50	213.00	211.45	210.00
Weight Mortar / M	31.56	31.56	31.56	31.56
Total Weight / M	249.06	244.56	243.01	241.56
800 mm wt. of DI pipe / M	240.75	235.80	233.82	232.33
Weight Mortar / M	33.69	33.69	33.69	33.69
Total Weight / M	274.44	269.49	267.51	266.02
900 mm wt. of DI pipe / M	292.75	286.20	283.82	281.83
Weight Mortar / M	37.89	37.89	37.89	37.89
Total Weight / M	330.64	324.09	321.71	319.72
1000 mm wt. of DI pipe / M	349.75	341.60	338.55	336.17
Weight Mortar / M	42.08	42.08	42.08	42.08
Total Weight / M	391.83	383.68	380.63	378.25

Note : These weights are as per the circular issued by Superintending Engineer (HQ) vide Lt No. MJP / 10 - 2000 / SE (H/Q) / DI / 15 / AMDT / Stores / 255 dt. 26.06.2000

V) P.V.C. Pipes (IS : 4985-1988)

Diameter of Pipe in mm	Class of Pipes and its weight in Kg. per meter length		
	4.00 Kg./Sq.cm.	6.00 Kg./Sq.cm.	10.00 Kg./Sq.cm.
63	0.47	0.67	1.01
75	0.67	0.93	1.44
90	0.92	1.33	2.05
110	1.32	1.89	3.08
140	2.13	3.10	4.99
160	2.78	3.92	6.56
180	3.56	5.07	8.10
200	4.26	7.00	10.20
225	5.48	7.84	12.56
250	6.63	10.19	15.31
280	8.34	12.16	19.80
315	10.55	15.37	25.00

VI) R.C.C. Pipes

Diameter of Pipe in mm	Class of Pipes and its weight in Kg. per meter length					
	P - 1	P - 2	P - 3	NP - 2	NP - 3	NP - 4
100	23.56	23.56	23.56	21.20	21.20	21.20
150	33.00	33.00	33.00	29.40	29.40	29.40
200	42.10	42.10	42.10	37.90	37.90	37.90
250	51.84	63.40	75.18	57.10	67.60	77.20
300	74.64	102.50	117.10	92.25	105.40	119.10
350	92.28	134.30	168.10	120.80	151.30	170.20
400	104.16	169.60	208.10	152.60	187.30	212.40
450	127.92	188.70	235.23	169.90	211.70	240.80
500	141.36	229.90	261.37	206.90	235.23	270.50
600	192.96	305.70	313.64	275.10	282.27	320.20
700	225.59	325.80	365.92	293.20	329.32	370.90
800	257.82	345.19	418.19	310.60	376.30	425.40
900	290.00	389.58	470.47	350.60	423.00	482.30
1000	322.28	443.98	510.00	399.80	459.00	531.40

VII) P.S.C. Pipes of all classes and B.W.S.C. Pipes of all classes

Diameter of Pipe in mm	Weight of pipe per meter length for all classes in Kg/m	Diameter of Pipe in mm	Weight of pipe per meter length for all classes in Kg/m
350	197.50	1100	947.50
400	240.00	1200	1115.00
450	257.50	1300	1190.00
500	292.50	1400	1370.00
600	375.00	1500	1560.00
700	432.50	1600	1767.50
800	582.50	1700	1987.50
900	705.00	1800	2205.50
1000	825.00		



SECTION - D

CEMENT CONSUMPTION

Sr. No	Description	Unit	Rate (Rs.) 2019-2020	
	<u>STANDARD CEMENT CONSUMPTION TO BE FOLLOWED FOR VARIOUS ITEMS OF WORK</u>			
A	<u>P.C.C. / R.C.C. Works</u>			
1	1 : 1% : 1 (M-300) with finishing in CM 1:3 proportion	Cum	9.20	bags
2	1: 1: 2 (M-250) with finishing in CM 1:3 proportion	Cum	8.50	bags
3	1: 1% : 3 (M-200) with finishing in CM 1:3 proportion	Cum	6.90	bags
4	1: 1% : 3 (M-200) without finishing	Cum	6.80	bags
5	1 : 2 : 4 (M-150) with finishing in CM 1:3 proportion	Cum	5.90	bags
6	1 : 2 : 4 (M-150) without finishing	Cum	5.80	bags
B	<u>Brick Masonry Works</u>			
1	BB Masonry - IInd sort in CM 1:6 proportion	Cum	1.44	bags
2	BB Masonry - IInd sort in CM 1:5 proportion	Cum	1.62	bags
3	BB Masonry - IInd sort in CM 1:4 proportion	Cum	2.30	bags
4	Half brick walls in CM 1:4 proportion	Cum	0.22	bags
C	<u>Stone Masonry Works</u>			
1	U.C.R. Masonry - IInd sort in CM 1:6 proportion	Cum	1.77	bags
2	U.C.R. Masonry - IInd sort in CM 1:4 proportion	Cum	2.65	bags
3	Random Rubble Masonry - IInd sort in CM 1:6 proportion	Cum	1.77	bags
4	Random Rubble Masonry - IInd sort in CM 1:4 proportion	Cum	2.65	bags
5	C.R. Masonry - IInd sort in CM 1:4 proportion	Cum	2.65	bags
6	C.R. Masonry - IInd sort in CM 1:6 proportion	Cum	1.50	bags
D	<u>Waterproofing Works</u>			
1	Damp-proof course 50 mm thick in 1:2:4 proportion with bitumen layer W.P. compound.	Sqm	0.35	bags
2	Integral finishing to newly laid slab in CM 1:3 proportion with W.P. compound.	Sqm	0.06	bags
3	Waterproofing treatment over old slab with W.P. cement slurry as tack coat 12 mm thick, W.P. plaster in CM 1:3 proportion, brickbat coba average 9.50 cm thick in CM 1:6 proportion and 20 mm thick W.P. cement plaster over it in CM 1:3 proportion and finishing with cement slurry with novelling.	Sqm.	0.37	bags
E	<u>Plastering and Pointing Works</u>			
1	<u>12 mm thick plaster</u>			
	a) CM 1:2 proportion	Sqm	0.16	bags
	b) CM 1:3 proportion	Sqm	0.12	bags
	c) CM 1:4 proportion	Sqm	0.10	bags
2	<u>20 mm thick plaster</u>			
	a) CM 1:2 proportion	Sqm	0.27	bags
	b) CM 1:3 proportion	Sqm	0.19	bags
	c) CM 1:4 proportion	Sqm	0.15	bags
3	<u>25 mm thick plaster</u>			
	a) CM 1:2 proportion	Sqm	0.34	bags
	b) CM 1:3 proportion	Sqm	0.25	bags
	c) CM 1:4 proportion	Sqm	0.19	bags
4	Cement pointing in CM 1:3 proportion	Sqm	0.03	bags
5	Tuck cement pointing in CM 1:3 proportion	Sqm	0.05	bags
6	Sand faced plaster in CM 1:4 proportion including base coat 15 mm thick in CM 1:4 proportion with W.P. compound.	Sqm	0.22	bags
7	Rough cast cement plaster in CM 1:4 proportion in two coats.	Sqm	0.22	bags

Sr. No	Description	Unit	Rate (Rs.) 2019-2020	
F	Flooring Works			
1	I.P.S. flooring - 40 mm thick	Sqm	0.30	bags
2	I.P.S. flooring - 50 mm thick	Sqm	0.37	bags
3	Rough Shahabad - any other similar flooring in CM 1:4 proportion bedding	Sqm	0.15	bags
4	All types of cement / kadappa / polished / mosaic tiles flooring or skirting / dado set on CM 1:4 proportion bedding	Sqm	0.18	bags
5	Glazed / ceramic tiles flooring or skirting / dado fixed with plain cement slurry	Sqm	0.22	bags



SECTION - E

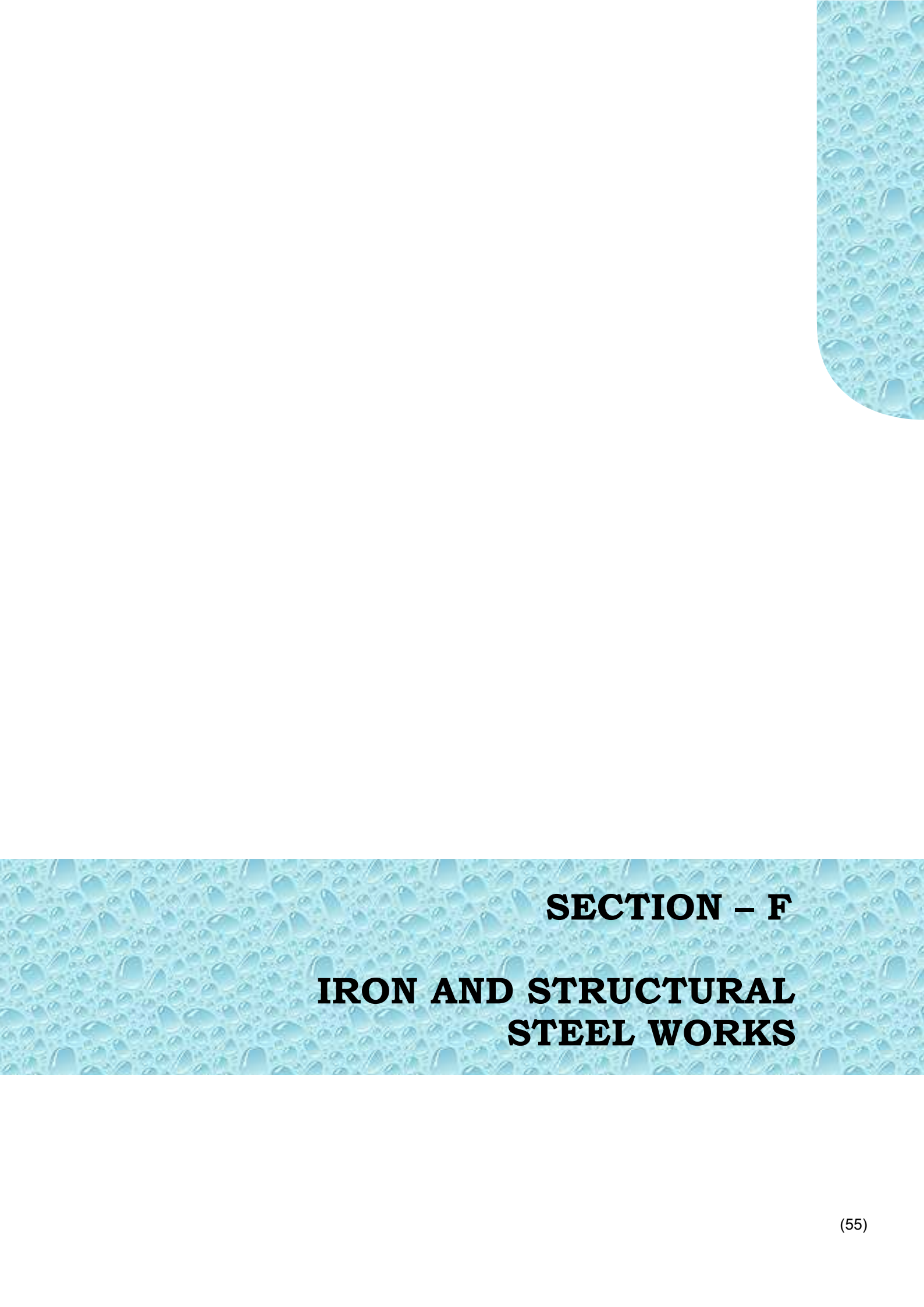
EXCAVATION

No.	Description	Unit	Rate (Rs.) 2019-020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	Excavation for foundation / pipe trenches in earth, <u>soils of all types, sand, gravel and soft murum</u> , including removing the excavated material upto a distance of 50 metres and lifts as below, stacking and spreading as directed, normal dewatering, preparing the bed for foundation and excluding backfilling, etc. complete. (Bd-A-1/259)					
	Lift 0 to 1.5 M	Cum	145	141		
2	Excavation for foundation / pipe trenches in <u>hard murum</u> including removing the excavated material upto a distance of 50 M and lifts as below, stacking and spreading as directed by Engineer-in-charge, normal dewatering, preparing the bed for foundation and excluding backfilling, etc. complete. (Bd-A-2/259)					
	Lift 0 to 1.5 M	Cum	165	160		
3	Excavation for foundation / pipe trenches in <u>hard murum and boulders, W.B.M. road</u> including removing the excavated material upto a distance of 50 M beyond the area and lifts as below, stacking and spreading as directed by Engineer-in-charge, normal dewatering, preparing the bed for foundation and excluding backfilling, etc. complete. (Bd-A-3/259)					
	Lift 0 to 1.5 M	Cum	185	179		
4	Add for every <u>additional lift of 1.5 M</u> beyond initial lift of 1.5 M for Item Nos. 1 to 3	Cum	12	12		
5	Excavation for foundation / pipe trenches in <u>soft rock and old cement and lime masonry foundation asphalt road</u> including removing the excavated material upto a distance of 50 M beyond the area and lifts as below, stacking as directed by Engineer-in-charge, normal dewatering, preparing the bed for foundation and excluding backfilling, etc. complete. (Bd-A-4/259)					
	Lift 0 to 1.5 M	Cum	472	446		
6	Excavation for foundation / pipe trenches in <u>hard rock by controlled blasting</u> , including trimming and levelling the bed by chiselling where necessary and removing the excavated material and stacking it in measurable heaps within a distance of 50 metres from the area and lifts as below, normal dewatering, excluding backfilling, etc. complete. (Bd-A-5/259)					
	Lift 0 to 1.5 M	Cum	608	561		

No.	Description	Unit	Rate (Rs.) 2019-020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
7	Excavation for foundation / pipe trenches in <u>hard rock and concrete road by chiselling, wedging, line drilling by mechanical means or by all means other than blasting</u> including trimming and levelling the bed, removing the excavated material upto a distance of 50 metres beyond the area and lifts as below, stacking as directed by Engineer-in-charge, normal dewatering, excluding backfilling, etc. complete by all means. (Bd-A-6/259)					
	Lift 0 to 1.5 M	Cum	801	780		
8	Excavation for foundation / pipe trenches in <u>slush muddy / marshy / slushy / soil including use of poclain</u> , labour for dewatering during execution including removing the excavated material upto a distance of 50 metres and lifts as below, stacking and spreading as directed, preparing the bed by cleaning the mud, labour required for execution for shuttering item but excluding backfilling, etc. complete. Providing and fixing shuttering shall be paid separately.					
	Lift 0 to 1.5 M	Cum	341	233		
9	Add for every <u>additional lift beyond initial lift of 1.5 M</u> for Item Nos. 5 to 10	Cum	21	21		
	HEAD WORKS					
10	Excavation in general in <u>soft material comprising of soft soil, soft murum, sand, hard murum with boulders in wet or dry condition</u> for Head Works i.e. Intake Well, Connecting Pipe, Jack Well, Pump House, Supply Well, etc. for lift 0 to 1.5M and lead of 150 M including barricading, guarding, disposing off surplus excavated stuff within a radius of 0.5 km. as directed by Engineer-in-charge, etc. complete excluding refilling.					
a)	For Head Works on <u>river or dam submergence</u> for initial lift of 0 to 1.5 M	Cum	402	390		
b)	For Head Works on nalla <u>or any other site of GSDA</u> for initial lift of 0 to 1.5 M	Cum	231	224		
c)	Add for each <u>additional lift of 1.5 M</u> beyond initial lift 1.5 M	Cum	23	9		
11	Excavation in general in <u>hard material comprising of soft rock, hard rock, Manjara rock, etc. by blasting / controlled blasting, chiselling</u> as required in wet or dry condition for Head Works i.e. Intake Well, Connecting Pipe, Jack Well, Pump House, Supply Well, etc. for lift 0 to 1.5 M and lead of 150 M including barricading, guarding, disposing off surplus excavated stuff within a radius of 0.5 km. as directed by Engineer-in-charge, excluding refilling.					

No.	Description	Unit	Rate (Rs.) 2019-020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
a)	For Head Works on river or dam submergence for initial lift of 0 to 1.5 M	Cum	855	760		
b)	For Head Works on nalla or any other site of GSDA for initial lift of 0 to 1.5 M	Cum	608	525		
c)	Add for each additional lift of 1.5 M beyond initial lift 1.5 M	Cum	23	9		
12	Excavation in general in soft material comprising of soft soil, soft murum, sand, hard murum with boulders in wet or dry condition for Head Works and allied works by well sinking process for average depth of 12 M and lead of 150 M including shoring, barricading, guarding, refilling, disposing off surplus excavated stuff as directed by Engineer-in-charge, etc. complete.					
a)	Diameter upto and including 3 M	Cum	801	747		
b)	Diameter more than 3 M	Cum	650	606		
13	Desilting the Supply Well, Intake Well / Head Works, Sump of water supply / sewerage works etc. in wet or dry condition including lifts upto 9 M and lead upto 150 M as required beyond the work site, stacking, spreading, including necessary guarding, etc. complete, as directed by Engineer-in-charge.					
		Cum	616	574		
	Add for each additional lift of 1.5 M beyond initial lift 9.0 M	Cum	22	20		
14	Dewatering the excavated trenches and pools of water in the building trenches / pipeline trenches, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in-charge (including cost of machinery, labour, fuel), etc. complete. (Bd-A-9/261)					
		HP/ Hr.	70	13		
	(i) The Contractor at his request may be allowed to start construction of masonry steining so as not to allow silting of well in oncoming monsoon and while paying masonry, 25% amount shall be withheld and released only when excavation to the full depth is completed.					
	(ii) Dewatering : Total dewatering charges are to be proposed in the tender as lumpsum amount and 75% is payable for excavation and 25% is payable for construction of well / gallery. Out of 75% excavation, break-up shall be as under					
	25% for last 1 M depth.					
	20% for 2 M depth which is just above last 1 M depth.					
	15% for 2 M depth which is just above last 3 M depth.					
	15% for the rest of depth from water table level.					

No.	Description	Unit	Rate (Rs.) 2019-020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	The above conditions will restrict the tendencies of agencies to avoid deepening of wells, etc. to the required depth.					
15	<u>Refilling the trenches with available excavated stuff</u> with soft material first over pipeline and then hard material in 15 cm layers with all leads and lifts including consolidation, surcharging, etc. complete.	Cum	73	69		
16	Filling in plinth and floors <u>murum bedding</u> in trenches with <u>approved murum from excavated materials</u> from foundation in 15 cm to 20 cm layers including watering and compaction, etc. complete. (Bd-A-10/263)	Cum	73	69		
17	Filling in plinth and floors / trenches with <u>contractor's murum</u> for bedding in 15 cm to 20 cm layers including watering and compaction, etc. complete. (Bd-A-11/263)	Cum	760	239		
18	Providing dry trap/ granite/ quartzite/ gneiss, <u>rubble stone soling</u> in 15 cm to 20 cm thick layers including hand packing and compacting, etc. complete. (Bd-A-12/264)	Cum	1029	431		
19	Providing and filling in <u>sand boxing</u> in pipeline or for foundation with sand of approved quality including watering and compaction, etc. complete. (Bd-A-13/264)	Cum	1049	140		
20	<u>Open timbering in trenches</u> of depth more than 1.5 M for shoring and strutting including use of and waste of all necessary timber works including walling, struts, open polling boards / horizontal sheeting, runners, etc. as may be necessary and fixing and removal complete. (Measurements to be taken of the face area timbered) (N.B.O. Item No. 4-15, P.No. 59)					
	a) Lift 0 to 1.5 M for non-water logged area	Sqm	132	12		
	Additional per Sqm for further lifts of 1.5 M each	Sqm	36	25		
	b) Lift 0 to 1.5 for water logged area	Sqm	146	19		
	Additional per Sqm for further lifts of 1.5 M each	Sqm	21	21		
	<u>Note</u> : For the trenches with more than 1.5 M depth, shoring if required from GL is to be done and is payable from GL.					

The background of the page is a light blue color with a pattern of small, realistic water droplets. The droplets are more concentrated in the top right corner and the bottom section, where they form a horizontal band. The text is centered within this band.

SECTION – F

IRON AND STRUCTURAL STEEL WORKS

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	Providing and fixing <u>mild steel grill</u> work for windows/ ventilators of 20 Kg/Sqm. as per drawings including necessary welding and painting with one coat of anticorrosive paint and two coats of oil painting, etc. complete. (Bd-U-1/537)	Sqm	1662	154		
2	Providing and fixing <u>mild steel grill railing</u> of 20 Kg/Sqm with teak wood hand railing, still and newel posts for staircase and including fabricating, fixtures, erecting, painting the grill work with approved oil paint and polishing the hand rail and newel posts with French polish two coats, etc. complete. (Bd-U-2/537)	Sqm	2509	396		
3	Providing <u>structural steel work in rolled stanchions fixed with connecting plates or angle cleats</u> as in main and cross beams, hip and jack rafters, purlins connecting to truss members and like as per detailed designs and drawings or as directed by Engineer-in-charge including cutting, fabricating, hoisting, erecting, fixing in position, making riveted / bolted / welded connections and one coat of anticorrosive paint and over it two coats of oil painting, etc. complete. (Bd-C-3/275)	MT	65463	10033		
4	Providing structural steel work in single stanchions composed of RSJ, channel, etc. with caps, bases, mild steel plates, angles, brackets, cleats, gusset plates, anchor bolts, etc. as per detailed design and drawing or as directed by Engineer-in-charge including cutting, fabrication, hoisting, erecting, fixing in position, making riveted / bolted / welded connections and one coat of anticorrosive paint and over it two coats of oil painting, etc. complete. (Bd-C-6/277)	MT	64187	9303		
5	Providing <u>structural steel work in rolled sections like joists, channels, angles, tees</u> , etc. as per detailed designs and drawings including fixing in position without connecting plates, braces, etc. and one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade, etc. complete. (Bd-C-2/275)	MT	67633	10523		

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
6	Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates, etc. as per detailed design and drawing or as directed by Engineer-in-charge including cutting, fabricating, hoisting, erecting and fixing in position, making riveted / bolted / welded connections and one coat of anticorrosive paint and over it two coats of oil painting, etc. complete. (Bd-C-8/278)	MT	85824	24045		

SECTION – G
PLAIN, REINFORCED AND
READY MIX CONCRETE

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	Providing and laying in situ Cement Concrete M-15 of trap/ granite / quartzite / gneiss metal for foundation and bedding including bailing out water, form work, compaction, curing, etc. complete. (Cement 5.90 bags / cum)					
	Spec. No. - Bd E /1 Page No. 287 and B-7, Page No. 38					
	a) In PCC M-100	Cum	4652	1405		
	b) In PCC M-150	Cum	5035	1402		
2	Providing and laying in situ Cement Concrete of trap/ granite / quartzite / gneiss metal for RCC work in foundation like raft, grillage, strip foundation and footing of RCC columns and steel stanchions including normal dewatering, form work, compaction, finishing and curing, etc. complete. (By weigh batching and mix design for M250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	a) In RCC M-150	Cum	5863	1681		
	b) In RCC M-200	Cum	5895	1675		
	c) In RCC M-250	Cum	6367	1679		
	d) In RCC M-300	Cum	6574	1680		
3	Providing and casting in situ Cement Concrete of trap/ granite / quartzite / gneiss metal of approved quality for RCC works as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness if special finish is to be provided and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	For all types of Columns					
	a) In RCC M-150	Cum	6938	4806		
	b) In RCC M-200	Cum	7126	1675		
	c) In RCC M-250	Cum	7598	1679		
	d) In RCC M-300	Cum	7828	1680		

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
4	Providing and casting in situ C.C. of trap / granite/ quartzite / gneiss metal of approved quality for RCC works as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	For Beams / Braces / Lintels					
	a) In RCC M-150	Cum	6808			
	b) In RCC M-200	Cum	7018			
	c) In RCC M-250	Cum	7491			
	d) In RCC M-300	Cum	7698			
5	Providing and casting in situ C.C. of trap / granite/ quartzite / gneiss metal of approved quality for RCC works as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	Slabs / Landings / Vertical Walls / Waist Slabs / Steps for Staircase					
	a) In RCC M-150	Cum	7275			
	b) In RCC M-200	Cum	7610			
	c) In RCC M-250	Cum	8083			
	d) In RCC M-300	Cum	8290			

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
6	Providing and casting in situ C.C. of trap / granite/ quartzite / gneiss metal of approved quality for RCC works as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing, etc. complete. (By weigh batching and mix design for M-250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	Chajjas / Parapets / Curtain Walls / Partition Walls / Pardies					
	a) In RCC M-150	Cum	7351			
	b) In RCC M-200	Cum	7561			
	c) In RCC M-250	Cum	8033			
	d) In RCC M-300	Cum	8240			
7	Providing and laying in situ R.C.C. of trap / granite/ quartzite / gneiss metal of approved quality for RCC works of domes as per detailed drawings and designs approved by Engineer-in-charge including centering, finishing, roughening the surfaces with special finish or plaster to be provided separately, curing, etc. complete. (By weigh batching and mix design for M250 and M-300 only. Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted.) (Excluding M.S. or Tor reinforcement)					
	Domes					
	a) In RCC M-150	Cum	7674			
	b) In RCC M-200	Cum	7884			
	c) In RCC M-250 - Bottom Domes only	Cum	8357			
	d) In RCC M-300 - Bottom Domes only	Cum	8564			
8	Providing and fixing in position steel bar reinforcement of various diameters for RCC piles, caps, footings, foundations, slabs, beams, columns, canopies, staircases, newels, chajjas, lintels, pardies, copings, fins, arches, etc. as per detailed designs, drawings and schedules; including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required, etc. complete (including cost of binding wire) . (Bd-F-17/306)					
	a) Mild Steel	MT	55965	9386		

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	b) To r Steel	MT	63216	9386		
	c) Corrosion Resistant Steel (Fe 500)	MT	63216	9650		
	d) Only fabrication (Labour) (For all types of steel)	MT		--		
9	Providing <u>fusion bonded epoxy coating</u> to reinforcement bars as per IS-13620/1993 specification for a thickness of 175 (±50) microns including extra cost on account of careful handling, extra cost on account of using PVC coated binding wire instead of G.I. wire, extra cost on account of touch-up material supplied by coating agency and repair work, extra cost on account of transportation to and fro from steel yard at Regional Centre to plant at Daman and plant at Daman to work site by trailer, loading, unloading, including all taxes (Central and local), etc. complete.					
A	<u>For Reinforcement Diameterwise Rates</u>					
	1) 8 mm dia	MT	17529			
	2) 10 mm dia	MT	15465			
	3) 12 mm dia	MT	14111			
	4) 16 mm dia	MT	13595			
	5) 20 mm dia	MT	12497			
	6) 25 mm dia	MT	11336			
	7) 28 mm dia	MT	10820			
	8) 32 mm dia	MT	10045			
B	<u>Average Rates (For estimation only)</u>					
	1) For 8 mm to 20 mm dia	MT	14639			
	2) For above 20 mm dia	MT	10734			
	<u>Notes for Estimation</u>					
	1) All the rates of Reinforced Cement Concrete Items from 1 to 6 shall be increased by 10% for each brace height above 1st brace for R.C.C. E.S.R.s. e.g. For a R.C.C. E.S.R. with 7 M staging and first brace at 3.50 M above ground, the concrete in columns above first brace, concrete of ring beam and bottom slab is entitled for 10% increase, concrete of vertical wall, roof slab and roof beams, columns in container are entitled for 20% increase.					
	2) All the rates of Reinforced Cement Concrete Items from 1 to 6 shall be increased by 2% for every floor height above ground floor for building works.					
	3) These rates are applicable for R.C.C. well works also. These rates shall be increased by 10% for every 5 M depth below initial 5 M depth.					

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	4) Rates for Item Nos. 7 and 8 shall be increased by 5% for each brace height above first brace for R.C.C. E.S.R.s. By 5% for every ring beam below first ring beam for R.C.C. wells. By 1% building works for every floor height.					
	5) Volumetric mix as per 1:1½:3 shall be adopted with 56.5 kg of cement for RCC-250 and 59.5 kg of cement for RCC-300, per load of mixer of 1 bag capacity.					
	6) Fusion bonded epoxy coating to be proposed only in Coastal Area with prior approval of the Chief Engineer.					
	7) For estimation purpose, average rates as per Item No. 8b shall be considered wherever necessary.					
	READY MIX CONCRETE					
10	Providing and laying in situ <u>Ready Mix Cement Concrete</u> grade of trap / granite / quartzite / gneiss metal for <u>RCC works in foundation</u> like raft, grillage, strip foundation and footing of RCC column and steel stanchions including normal dewatering, form work, compaction, finishing and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. <u>(Excluding reinforcement and structural steel)</u>					
	For Foundation					
	a) In RCC M-150	Cum	4986			
	b) In RCC M-200	Cum	5225			
	c) In RCC M-250	Cum	5800			
	d) In RCC M-300	Cum	6165			
11	<u>Providing and casting in situ Ready Mix Cement Concrete</u> grade of trap / granite / quartzite / gneiss metal of approved quality for <u>RCC works</u> as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. <u>(Excluding reinforcement and structural steel)</u>					
	For all types of Columns					

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	a) In RCC M-150	Cum	6102	552		
	b) In RCC M-200	Cum	6342	540		
	c) In RCC M-250	Cum	6921	556		
	d) In RCC M-300	Cum	7288	563		
12	Providing and casting in situ Ready Mix Cement Concrete grade of trap / granite / quartzite / gneiss metal of approved quality for RCC works as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. (Excluding reinforcement and structural steel) For Beams / Braces / Lintels					
	a) In RCC M-150	Cum	6088	552		
	b) In RCC M-200	Cum	6327	540		
	c) In RCC M-250	Cum	6218	633		
	d) In RCC M-300	Cum	7274	563		
13	Providing and casting in situ Ready Mix Cement Concrete grade of trap / granite / quartzite / gneiss metal of approved quality for RCC works as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. (Excluding reinforcement and structural steel) Slabs / Landings / Vertical Walls / Waist Slabs / Steps for Staircase					
	a) In RCC M-150	Cum	6478	556		
	b) In RCC M-200	Cum	6719	544		
	c) In RCC M-250	Cum	7301	560		
	d) In RCC M-300	Cum	7666	566		

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
14	Providing and casting in situ Ready Mix Cement Concrete grade of trap / granite / quartzite / gneiss metal of approved quality for RCC works as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. (Excluding reinforcement and structural steel)					
	Chajjas / Parapets / Curtain Walls / Partition Walls / Pardies					
	a) In RCC M-150	Cum	6368	633		
	b) In RCC M-200	Cum	6797	545		
	c) In RCC M-250	Cum	7379	561		
	d) In RCC M-300	Cum	7751	567		
15	Providing and casting in situ Ready Mix Cement Concrete grade of trap / granite / quartzite / gneiss metal of approved quality for RCC works as per detailed drawings and designs or as directed by Engineer-in-charge including normal dewatering, centering, form work, compaction, finishing the formed surfaces with CM 1:3 of sufficient minimum thickness to give a smooth and even surface wherever necessary or roughening if special finish is to be provided and curing including transporting from mixing plant upto distance of 25 km., pouring the concrete at work site for 1.5 M lift above G.L. and 5.0 M lift below G.L., etc. complete. (Excluding reinforcement and structural steel)					
	Domes					
	a) In RCC M-150	Cum	6780	559		
	b) In RCC M-200	Cum	7021	548		
	c) In RCC M-250	Cum	7605	563		
	d) In RCC M-300	Cum	7970	568		
	Notes					
	1) Add Rs. 10/- per Cum for transportation beyond 25 km. for every additional lead of 1 km.					
	2) Beyond 1.5 M above G.L. and 5.0 M below G.L., concreting is to be done by pumping by the Company.					
	3) Additional rate of pumping is					

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	a) Static Pump : Rs. 175/- per Cum					
	b) Mobile Pump : Rs. 250/- per Cum					
	4) For Ready Mix Concrete, prior permission from Chief Engineer must be obtained.					
	Note : Completed rates are inclusive of 12.5% EPF and 1% Insurance Charges.					



SECTION – H

MISCELLANEOUS

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	Providing and fixing G.I. pipe railing having 1.0 M height consisting 50 x 50 x 6 mm thick M.S. angles as verticals at 1.5 M c/c and additional posts at every corner with 3 rows of 25 mm dia G.I. pipes of medium class variety as horizontal and painting 3 coats of oil paint over 1 coat of anticorrosive paint of approved colour and shade including cost of all labour, transporting bends to curved shape, etc. complete.	RM	889	152		
A	As above but with only 2 rows.	RM	706	108		
2	Dismantling of ESRs of various capacities and heights using crane (10 MT capacity) and handing over M.S./C.I./G.I. pipes, valves, bends, etc. to the Department. However taking steel reinforcement by the dismantling agency including removing dismantled materials from site and disposing them at suitable place as directed, etc. complete.					
A	Capacity of E.S.R. upto 2 lakh litres and staging upto 12 M height.					
	i) Congested Area	Lit	2.31	1.43		
	ii) Open Area	Lit	1.155	0.86		
B	Capacity of E.S.R. above 2 lakh litres and staging upto 12 M height.					
	i) Congested Area	Lit	1.16	1.15		
	ii) Open Area	Lit	1.16	0.76		
	Note : Above 12 M staging height, add 5% per metre staging of E.S.R. of any capacity.					
3	Providing and fixing M.S. gate 2.5 M wide for compound with 40 mm dia G.I. pipe, approved grill work, RCC M-150 side pillars of 25 cm x 40 cm x 2.5 M height, its foundation, finishing, painting, etc. complete.	No.	27441.00	3592		
4	Providing and fixing Wicket gate 1.0 M wide for compound with 40 mm dia G.I. pipe, approved grill work, RCC M-150 side pillars of 25 cm x 40 cm x 2.5 M height, its foundation, finishing, painting, etc. complete.	No.	15548.00	2192		

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
5	<u>Taking trial bore (Core Bore Sampling) by Callyx machine with TCT/NX bits to gather undisturbed strata samples</u> for investigation in all types of strata, soft soil, murum, hard murum with boulders, soft rock, hard rock and quartzite, etc. The item includes all hire and running cost of Callyx machine, conveying all materials to site of work excluding conveyance of callyx machine and back sampling all over burden strata in glass jar and core samples serially numbered at site in a wooden core box, samples to be taken at 1.0 M interval and conveying to the place as directed by Engineer-in-charge. The diameter of bore in overburden shall be 100 mm and of NX size (50 mm) in other strata. The item shall also include M.S. casing pipe of 2.5 mm thick plate in overburden only and shall be 1.0 M above GL with cap over it.					
	a) In overburden (soft soil, murum)	RMT	1464.00	217.00		
	b) In weathered rock with boulders	RMT	5728.00	1219.00		
	c) In weathered rock / soft rock	RMT	3202.00	664.00		
	d) In hard rock other than quartzite	RMT	4247.00	945.00		
	e) In hard rock quartzite	RMT				
6	Providing <u>pressure grouting at a pressure of 5.6 kg/sqcm</u> in required row / zigzag fashion as specified at 1.5 M interval as per site conditions to stop leakages through water retaining structures to the entire satisfaction of the Engineer-in-charge including material compound, hardening materials, compressor equipment including scaffolding, smooth finishing, etc. complete.					
	i) For masonry structure	Bag	734.00	206.00		
	ii) For concrete structure	Bag	723.00	202.00		
7	<u>Drilling 40 mm dia holes</u> in masonry or concrete structure with providing and fixing 0.5 M long G.I. pipeline for pressure grouting including all material, labour cost and machinery charges, etc. complete.	RM	768.00	70.00		
8	<u>Providing and casting ferrocrate water tank</u> at site including all cost of labour and material, etc. complete upto 25,000 litres (for foundation and providing and fixing taps, etc. shall be considered separately).	Lit	5.00	1.00		

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
9	Providing and applying one coat of gamma coating or equivalent such as Dr.Bake, Krishna Conchem, Asian Paint, Atul Limited, Burger Paint, epoxy primer 50 to 60 microns thick and covering two coats of gamma coatings or equivalent such as Dr. Bake, Krishna Conchem, Asian Paint, Atul Limited, Burger Paints 30 microns thick each to new M.S. pipes and structural steel or concrete surface including repainting the surface by finishing by solvent degreasing and de-rusting by applying chemical method and scaffolding if necessary, etc. complete as per manufacturer's specifications.	Sqm	321.00	128.00		
10	Making cross connection to existing distribution main of any type including excavation, breaking and removing existing pipes, lowering, laying of specials and pipes in their position, refilling, closing the water supply in that area, dewatering and restarting the water supply, etc. complete as directed by Engineer-in-charge for following diameters of existing pipeline, irrespective of diameter of branch line. (The number of joints involved will be paid separately depending upon the nature of joints and required pipes, valves and specials will be supplied free of cost at stores.)					
i)	80 mm	No	2214			
ii)	100 mm	No	2526			
iii)	125 mm	No	2801			
iv)	150 mm	No	3122			
v)	200 mm	No	3251			
vi)	250 mm	No	3829			
vii)	300 mm	No	4645			
viii)	350 mm	No	5654			
ix)	400 mm	No	6650			
x)	450 mm	No	7642			
xi)	500 mm	No	9473			
xii)	600 mm	No	16402			
xiii)	700 mm	No	20286			
xiv)	750 mm	No	25662			
xv)	800 mm	No	32886			
xvi)	900 mm	No	43267			
xvii)	1000 mm	No	60736			
	Note : Only 75% rate shall be payable till satisfactory hydraulic testing is given.					

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
11	<u>Dismantling dead pipeline</u> of M.S./ R.C.C./ C.I./ P.S.C. and G.I./ A.C./ P.V.C./ S.W./ H.D.P.E. pipe including cost of necessary excavation and refilling of trenches, breaking the joints, lifting the pipes and stacking to the place as directed by Engineer-in-charge with all leads and lifts including cleaning the surface, etc. complete.					
A	For M.S. / R.C.C. / C.I. / P.S.C.					
i)	80 mm	RMT	165	--		
ii)	100 mm	RMT	182	--		
iii)	125 mm	RMT	185	--		
iv)	150 mm	RMT	188	--		
v)	200 mm	RMT	210	--		
vi)	250 mm	RMT	232	--		
vii)	300 mm	RMT	252	--		
viii)	350 mm	RMT	283	--		
ix)	400 mm	RMT	309	--		
x)	450 mm	RMT	349	--		
xi)	500 mm	RMT	365	--		
xii)	600 mm	RMT	449	--		
xiii)	700 mm	RMT	526	--		
xiv)	750 mm	RMT	590	--		
B	For G.I. / A.C. / P.V.C. / S.W. / H.D.P.E.					
i)	80 mm	RMT	98	--		
ii)	100 mm	RMT	109	--		
iii)	125 mm	RMT	111	--		
iv)	150 mm	RMT	114	--		
v)	200 mm	RMT	125	--		
vi)	250 mm	RMT	140	--		
vii)	300 mm	RMT	150	--		
viii)	350 mm	RMT	171	--		
ix)	400 mm	RMT	185	--		
x)	450 mm	RMT	210	--		
xi)	500 mm	RMT	219	--		
xii)	600 mm	RMT	270	--		
xiii)	700 mm	RMT	316	--		
xiv)	750 mm	RMT	353	--		

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
12	<u>Providing and constructing two taps standpost</u> as per type design with excavation 15 cm thick PCC 1:3:6 bedding 20 mm thick PCC 1:2:4 concrete for platform of 1.75 M dia. with side curb and bucket rest, 80 mm dia, heavy duty GI pipe central post duly filled therein with C.C. 1:2:4, 5 M long, 20 mm dia. medium G.I. pipe from point of tapping to standpost, additional 20 mm dia G.I. pipe fixed vertically upto 15 mm dia self closing water taps, one brass ferrule, etc. complete together with all labour and material charges as per drawing and as directed by Engineer-in-charge when good foundation is available. Rate includes draining arrangement by excavating open gutters.	No	9194			
A	As above but when precast RCC platform or precast standpost is issued free of cost at departmental stores including cost of transportation and fixing, etc. complete.	No	5513			
13	<u>Providing and constructing two taps standpost</u> as per type design with excavation 30 cm thick boulder filling 15 cm thick PCC in 1:3:6, 20 mm thick RCC, 1:2:4 platform of 1.75 M dia. with side curb and bucket rest, 80 mm dia, heavy duty GI pipe central post duly filled therein with C.C. 1:2:4, 5 M long, 20 mm dia. medium G.I. pipe from point of tapping to standpost, additional 20 mm dia G.I. pipe fixed horizontally and providing and fixing two 15 mm dia GI self closing water taps, one brass ferrule, etc. complete together with all labour and material charges as per drawing and as directed by Engineer-in-charge when B.C. soil is available. Rate includes draining arrangement by excavating open gutters.	No	9743			
A	As above but when precast RCC platform or precast standpost is issued free of cost at departmental stores including cost of transportation and fixing, etc. complete.	No	5750			

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
14	Pushing of M.S. pipes of following dia for road crossing and railway crossing by push through method in all types of strata by using hydraulic jack and drilling machine of required diameter of below M.S. casing pipes, lowering, laying , jointing of material, required welding machinery, tripod, shain -pulley block crain, blower, compressor, loading and unloading of machinery into the trench, etc. transportation and dewatering, etc complete, as directed by engineer-in-charge but excluding the cost of M.S. pipes.					
	a) 200 mm to 499 mm dia MS pipe	RMT	25059	--		
	b) 500 mm to 1000 mm dia MS pipe	RMT	31324	--		
15	Providing and erecting slip form shuttering including dismantling after completion for constructing vertical shutters, such as jackwell, balancing tank, bridge column and for horizontal structure in R.C.C. The item includes lifting arrangement, centering, form work, normal dewatering, electrical arrangement with generator set and with all equipments for slip form shuttering work with labour, material and machinery, all rents, fuels, insurance charges. The rate is for various dia, depth and various sizes of structures, etc. complete. Note : A) All risks and costs lie with the contractor itself. B) The arrangement for lighting with cables till top height to be provided by the contractor. C) Any accident arising out of the work will be responsibility of the contractor. D) No idle charges for machinery and labour will be paid. E) Insurance for all types of machinery and workers will be borne by contractor.					
		Sq.M.	3234			

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
16	<u>Providing and Laying HDPE Geomembrane sheet</u> of following thickness 100% acid, alkali proof, 100% reinforced sealing quality, every joint electronically welded, as per relevant IS specification and placing in proper position on prepared bed on foundation/ embankment with welding the joints of sheet using hot sedge and extrusion welding techniques according to the leanier manufaturers specifications at ambient temperaturesnof 5qC to 45qC including all taxes and labour for jointing and placing etc. complete.					
	500 micron	Sq.M.	259	65.00		
	250 micron	Sq.M.	179	45.00		
17	<u>Providing and supplying Poly Aluminium Chloride (PAC) of medium basicity,</u> confirming to IS : 15573 : 2005, and ISI mark and manufacture from vergin raw material in liquid / powder form with PH of 5%, having specific gravity 1.204 for use in water treatment plant for treatment of low to high turbidity water for drinking purpose including all mlocal and central taxes, insurance charges, transportation and freight charges, third party charges, with material testing charges (from VJTI/ IIT/ DPH lab.), loading and unloadning charges and conveyance to water works and R.R. schemes sites in Maharashtra etc. complete as per MJP approved.					
	PAC medium high basicity in powder form	M.T.	28100			
	PAC medium high basicity in liquid form	M.T.	9596			

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
18	<u>External Coating</u> Providing and applying 100% Solids <u>Polyurethane Coating</u> meeting BIS16719 or Rigid, Directto Metal,100% Solids Polyurethane Coating meeting AWWA C-222 of minimum 1000 micron thickness on the external surface of MS Pipe after blast cleaning to SA 2½ with Anchor profile of >75Microns using angular Steel Grit. Pipe blast cleaning and coating shall only be permitted in the pipe manufacturer's facility, preferably on rolling conveyor using fast set materials. The rates are including loading, unloading, handling and transportation of Pipe etc complete.	Sqm	662			
	Product shall be supplied and applied as per detailed specification provided by the department.					
19	<u>Internal Lining</u> Providing and applying 100% Solids <u>Polyurethane Coating</u> meeting BIS 16719 or Rigid, Directto Metal,100% Solids Polyurethane Coating meeting AWWA C-222 and satisfying the criterionfordrinking water as per WRAS-BS 6920 to a thickness of 500 Microns (SSPC PA2) on theinternal surface of MS Pipe afterblast cleaning to SA 2½ with Anchor Profile of >75 Microns Using angular Steel Grit.The Coating should meetTotal Organic Carbon (TOC) as per APHA-AWWAWEF5310C < 2.00 milligram/Litre. Pipe lining shall only be permitted in the pipe manufacturer's facility. Site application shall not be permitted. The rates are including loading, unloading, handling and transportation of Pipe etc complete.	Sqm	470			
	Product shall be supplied and applied as per detailed specification provided by the department.					

No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
20	Internal Lining (food grade Epoxy) Providing and applying two part food grade polyamide cured solvent less epoxy lining, meeting BIS 16676 on the internal surface of MS Pipe afterblast cleaning to SA 2½ with Anchor Profile of >75 Microns Using angular Steel Grit. The minimum dry film thickness (DFT) of internal lining shall be 400 micron (SSPC PA2). The epoxy coating should offer highest resistance to cathodic disbondment and provide excellent adhesion to steel. The manufacturer shall have the certificate issued in support of portable water service for tests of pH, turbidity, total hardness, chloride nitrate, iron, arsenic & fluoride as per IS 10500 : 2003 and IS 16676 : 2017. Site application shall not be permitted. The rates are including loading, unloading, handling and transportation of Pipe etc complete.	Sqm	415			
	Product shall be supplied and applied as per detailed specification provided by the department.					

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SECTION – I (I)

C.I./D.I. PIPES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	1. C.I. PIPES			
1.	Providing and supplying ISI mark C.I. S&S pipes (push on joints pressure pipes of C.I of following class and diameters confirming to the I.S.specification inclusive cost of jointing materials(Rubber gasket of EPDM Quality) excluding GST levied by Gol and GoM in all respect, Third party inspection charges of TPI Agency approved by MJP including Transit insurance, Railway Freight, Unloading from railway wagon, Loading into Truck, Transportation to departmental store/site of work,unloading, stacking etc. completed as directed by Engineer –in-charge (IS 1536/2001 for pipes and IS 158/1969 and IS 12820/1989 or latest edition / revision with amendments for Rubber Gaskets.			
	(Suitable for Tyton / Pig lead joints)			
	a) Class 'LA'			
	i) 80 mm	Rmt	797.00	
	ii) 100 mm	Rmt	999.00	
	iii) 150 mm	Rmt	1622.00	
	iv) 200 mm	Rmt	2335.00	
	v) 250 mm	Rmt	3147.00	
	vi) 300 mm	Rmt	4058.00	
	1. C.I. PIPES 'A' Class Continued			
	B) Class 'A'			
	i) 80 mm	Rmt	823.00	
	ii) 100 mm	Rmt	1028.00	
	iii) 125 mm	Rmt	1338.00	
	iv) 150 mm	Rmt	1647.00	
	v) 200 mm	Rmt	2380.00	
	vi) 250 mm	Rmt	3216.00	
	vii) 300 mm	Rmt	4163.00	
	viii) 350 mm	Rmt	5204.00	
	ix) 400 mm	Rmt	6383.00	
	x) 450 mm	Rmt	7732.00	
	xi) 500 mm	Rmt	8865.00	
	xii) 600 mm	Rmt	11837.00	
	xiii) 700 mm	Rmt	15427.00	
	xiv) 750 mm	Rmt	17135.00	
	xv) 800 mm	Rmt	19156.00	
	xvi) 900 mm	Rmt	23316.00	
	xvii) 1000 mm	Rmt	28046.00	
	c) Class 'B'			
	i) 80 mm	Rmt	875.00	
	ii) 100 mm	Rmt	1096.00	
	iii) 125 mm	Rmt	1440.00	
	iv) 150 mm	Rmt	1773.00	
	v) 200 mm	Rmt	2572.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
vi)	250 mm	Rmt	3478.00			
vii)	300 mm	Rmt	4510.00			
viii)	350 mm	Rmt	5645.00			
xiv)	400 mm	Rmt	6518.00			
x)	450 mm	Rmt	8343.00			
xi)	500 mm	Rmt	9590.00			
xii)	600 mm	Rmt	12636.00			
xiii)	700 mm	Rmt	16517.00			
xiv)	750 mm	Rmt	18590.00			
xv)	800 mm	Rmt	20722.00			
xvi)	900 mm	Rmt	25262.00			
xvii)	1000 mm	Rmt	30308.00			
2.	<u>Lowering laying and jointing with SBR ruber gaskets C.I. S/S pipes</u> of various classes with CI / MS specials of following diameter in proper position, grade and alignment as directed by Engineer-in-charge including conveyance of material from stores to site of work, <u>including cost of jointing materials and rubber rings labour</u> etc. complete.		Without Rubber Rings	With Rubber Rings		
	Note : Only SBR Rubber gaskets to be used					
a)	<u>C.I. 'L.A.' Class / Mortar inlined DI K-9/K-7</u>					
i)	80 mm.	Rmt	48.00	55.00		
ii)	100 mm.	Rmt	58.00	64.00		
iii)	125 mm.	Rmt	73.00	80.00		
iv)	150 mm.	Rmt	78.00	87.00		
v)	200 mm.	Rmt	103.00	114.00		
vi)	250 mm.	Rmt	135.00	149.00		
vii)	300 mm.	Rmt	146.00	167.00		
viii)	350 mm.	Rmt	182.00	205.00		
ix)	400 mm.	Rmt	219.00	253.00		
x)	450 mm.	Rmt	219.00	266.00		
xi)	500 mm.	Rmt	253.00	308.00		
xii)	600 mm.	Rmt	332.00	409.00		
xiii)	700 mm.	Rmt	429.00	576.00		
xiv)	750 mm.	Rmt	480.00	630.00		
xv)	800 mm.	Rmt	587.00	739.00		
xvi)	900 mm.	Rmt	702.00	928.00		
xvii)	1000 mm.	Rmt	829.00	1125.00		
B)	<u>C.I. 'A' Class</u>					
i)	80 mm.	Rmt	50.00	62.00		
ii)	100 mm.	Rmt	62.00	73.00		
iii)	125 mm.	Rmt	79.00	87.00		
iv)	150 mm.	Rmt	86.00	94.00		
v)	200 mm.	Rmt	111.00	122.00		
vii)	250 mm.	Rmt	146.00	161.00		
viii)	300 mm.	Rmt	160.00	179.00		
viii)	350 mm.	Rmt	196.00	220.00		
ix)	400 mm.	Rmt	221.00	254.00		
x)	450 mm.	Rmt	232.00	268.00		
xi)	500 mm.	Rmt	273.00	327.00		
xii)	600 mm	Rmt	361.00	437.00		

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xiii)	700 mm.	Rmt	464.00	611.00		
xiv)	750 mm.	Rmt	523.00	670.00		
xv)	800 mm.	Rmt	616.00	766.00		
xvi)	900 mm.	Rmt	741.00	967.00		
xvii)	1000 mm.	Rmt	866.00	1162.00		
c)	CI 'B' Class					
i)	80 mm.	Rmt	55.00	64.00		
ii)	100 mm.	Rmt	65.00	79.00		
iii)	125 mm.	Rmt	85.00	94.00		
iv)	150 mm.	Rmt	95.00	106.00		
v)	200 mm.	Rmt	122.00	136.00		
vi)	250 mm.	Rmt	158.00	179.00		
vii)	300 mm.	Rmt	173.00	193.00		
viii)	350 mm.	Rmt	212.00	246.00		
ix)	400 mm.	Rmt	246.00	279.00		
x)	450 mm.	Rmt	251.00	287.00		
xi)	500 mm.	Rmt	294.00	348.00		
xii)	600 mm.	Rmt	391.00	464.00		
xiii)	700 mm.	Rmt	502.00	645.00		
xiv)	750 mm.	Rmt	567.00	714.00		
xv)	800 mm.	Rmt	661.00	809.00		
xvi)	900 mm.	Rmt	783.00	1008.00		
xvii)	1000 mm.	Rmt	894.00	1187.00		
	Note :Only 85 % rate shall be payable till satisfactory Hydraulic testing is given.					
3.	Providing D.I. pipes (push on joints pressure pipes of D. I. of following class and diameters confirming to the I. S. specification inclusive cost of jointing materials (Rubber gasket of EPDM Quality) excluding GST levied by GOI & GOM in all respect including Third party inspection charges of TPI Agency approved by MJP including Transit insurance, Railway Freight, Unloading from railway wagon, Loading into Truck, Transportation to departmental store, unloading, stacking etc. completed as directed by Engineer in charges (IS 1536/2001 for pipes and IS 158/1969 and IS 12820/1989 or latest edi-tion/revision with amendments for Rubber Gaskets.					
	(IS:8329-2000 Latest Version)		D. I. K-7	D. I. K-9		
i)	100mm	Rmt	808.00	952		
ii)	150mm	Rmt	1192.00	1383		
iii)	200mm	Rmt	1469.00	1870		
iv)	250mm	Rmt	2044.00	2485		
v)	300mm	Rmt	2505.00	3106		
vi)	350 mm	Rmt	3371.00	3919		
vii)	400 mm	Rmt	3774.00	4558		
viii)	450 mm	Rmt	4696.00	5560		
ix)	500 mm	Rmt	5349.60	6405		

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
x)	600 mm	Rmt	6817.50	8175		
xi)	700 mm	Rmt	9245.00	10370		
xii)	750 mm	Rmt	10759.00	12130		
xiii)	800 mm	Rmt	12215.00	13188		
xiv)	900 mm	Rmt	14852.00	16283		
xv)	1000 mm	Rmt	17900.00	19580		
xvi)	1100 mm	Rmt	24375.00	24397		
xvii)	1200 mm	Rmt	26964.00	27874		
	Note: For DI pipe supply from MJP 18% GST would be applicable					
4.	Providing and making lead caulked joint with molten lead to Cast Iron pipes and / or specials of all classes and fitting of following dia including cost of lead and all jointing material, labour, hydraulic testing etc. complete.					
i)	80 mm.	Joint	792.00			
ii)	100 mm.	Joint	980.00			
iii)	125 mm.	Joint	1166.00			
iv)	150 mm.	Joint	1448.00			
v)	200 mm.	Joint	2111.00			
vi)	250 mm.	Joint	2563.00			
vii)	300 mm.	Joint	3091.00			
viii)	350 mm.	Joint	3504.00			
ix)	400 mm.	Joint	4087.00			
x)	450 mm.	Joint	5675.00			
xi)	500 mm.	Joint	6101.00			
xii)	600 mm.	Joint	7839.00			
xiii)	700 mm.	Joint	9209.00			
xiv)	750 mm.	Joint	10459.00			
xv)	800 mm.	Joint	11232.00			
xvi)	900 mm.	Joint	11980.00			
xvii)	1000 mm.	Joint	12774.00			
	Note :Only 85 % rate shall be payable till satisfactory Hydraulic testing is given.					
5.	Providing and supplying ISI standard CI double flanged pipes excluding GST levied by GOI & GOM in all respect including railway freight, insurance, unloading from railway wagon, loading into truck transport to stores, unloading etc. complete as directed by Engineer-in-charge.					
i)	80 mm.	Rmt	1333.00			
ii)	100 mm.	Rmt	1648.00			
iii)	125 mm.	Rmt	2145.00			
iv)	150 mm.	Rmt	2677.00			
v)	200 mm.	Rmt	4108.00			
vi)	250 mm.	Rmt	5535.00			
vii)	300 mm.	Rmt	7117.00			
viii)	350 mm.	Rmt	9289.00			
ix)	400 mm.	Rmt	11326.00			
x)	450 mm.	Rmt	13600.00			
xi)	500 mm.	Rmt	15961.00			

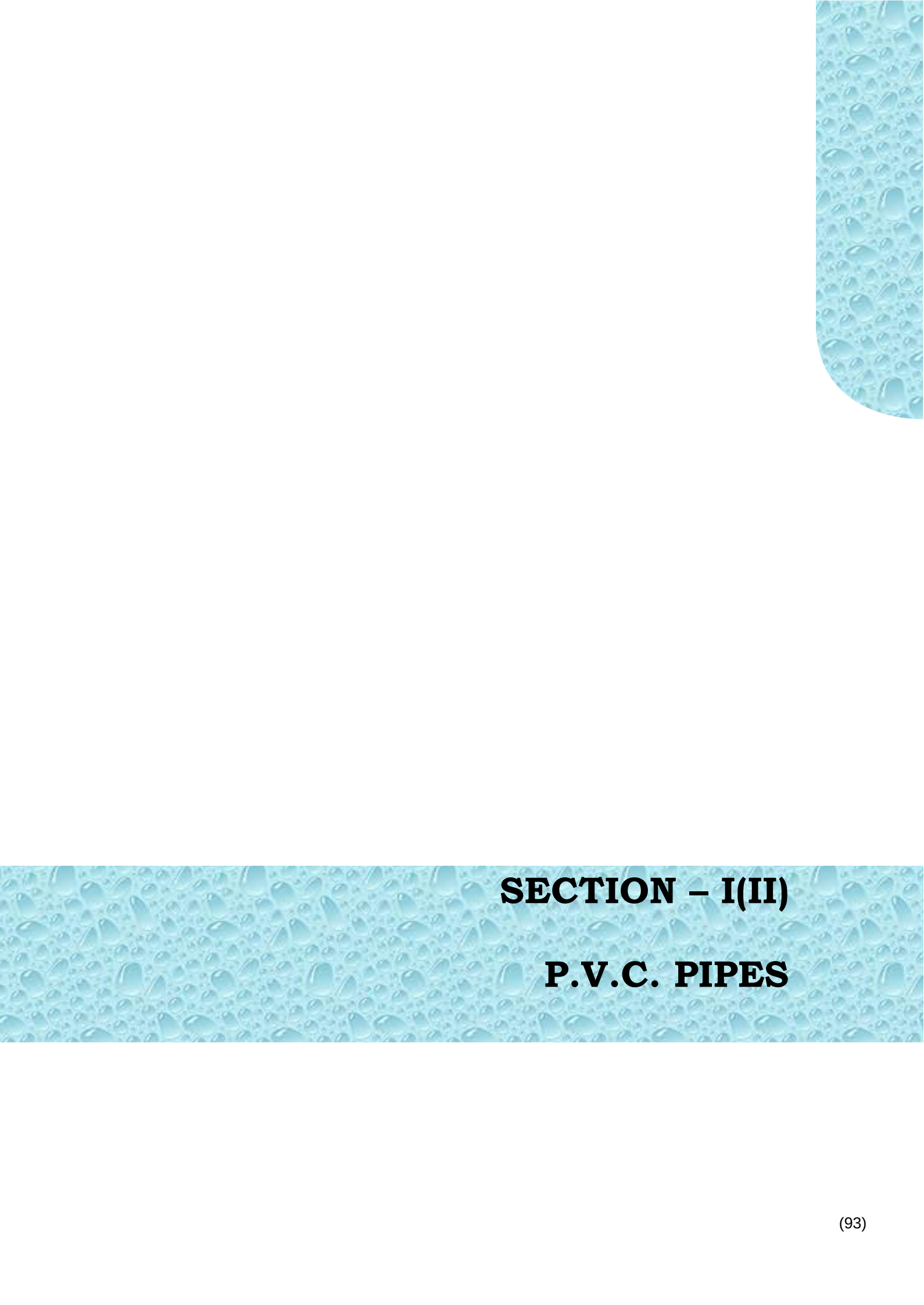
Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
xii)	600 mm.	Rmt	22705.00	
xiii)	700 mm.	Rmt	30419.00	
xix)	750 mm.	Rmt	33097.00	
6.	Providing and supplying ISI standard CI flanged / S& S specials including all statutory duties & taxes such as GST levied by GOI & GOM in all respect, railway freight, insurance, unloading from railway wagon, loading into truck transport to departmental store /site, unloading stacking etc. complete.			
a)	D/F Specials			
i)	80 to 300 mm dia	Kg.	66.00	
ii)	350 to 600 mm dia	Kg.	71.00	
iii)	Above 600 mm dia	Kg.	76.00	
b)	S/S Specials / Socketed Branch Flanged Specials			
i)	80 to 300 mm dia	Kg.	64.00	
ii)	350 to 600 mm dia	Kg.	68.00	
iii)	Above 600 mm dia	Kg.	73.00	
	C) Plain ended/ plain ended branch flanged specials			
i)	80 to 300 mm dia	Kg.	62.00	
ii)	350 to 600 mm dia	Kg.	68.00	
iii)	Above 600 mm dia	Kg.	73.00	
7.	Providing and supplying ISI standard MS specials of required thickness with 3 coats of approved make epoxy paint (Shalimar, Ciba or Mahindra & Mahindra make) from inside and outside excluding all statutory duties & taxes such as GST levied by GOI & GOM in all respect, inspection charges, transportation to stores / site, and stacking, etc. complete.			
a)	Machine ends suitable for PSC pipes of all diameters as per detailed drawing with 10 mm thick x 0.7 M long barrel welded to it.	Kg.	84.00	
b)	Only flanges with machining and drilling holes, etc. complete more than 40 mm thick.	Kg.	82.00	
c)	Double flanged specials of all diameters	Kg.	79.00	
d)	All socketed specials or socketed branch flanged specials of all diameters.	Kg.	79.00	
e)	Plain ended specials or plain ended branch flanged specials of all diameters.	Kg.	79.00	
f)	MS barrels (pipe pieces) locally manufactured (for small quantities)	Kg.	77.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
8.	<u>Providing and making flanged joints to flanged C.I./M.S. pipes</u> of all classes/specials etc. including cost of all jointing materials (rubber packing, nut bolts, etc.), labour, hydraulic testing etc. complete.					
i)	80 mm.	Joint	239.00			
ii)	100 mm.	Joint	412.00			
iii)	125 mm.	Joint	431.00			
iv)	150 mm.	Joint	827.00			
v)	200 mm.	Joint	857.00			
vi)	250 mm.	Joint	1229.00			
vii)	300 mm.	Joint	1276.00			
viii)	350 mm.	Joint	1662.00			
ix)	400 mm.	Joint	2071.00			
x)	450 mm.	Joint	2531.00			
xi)	500 mm.	Joint	2620.00			
xii)	600 mm.	Joint	2813.00			
xiii)	700 mm.	Joint	4237.00			
xiv)	750 mm.	Joint	4356.00			
xv)	800 mm.	Joint	6028.00			
xvi)	900 mm	Joint	6248.00			
xvii)	1000 mm	Joint	6468.00			
	<u>Note :Only 85 % rate shall be payable till satisfactory Hydraulic testing is given.</u>					
9.	<u>Erecting and hoisting in position and jointing, testing M.S./ C.I. D/F pipes and specials</u> in vertical position including cost of all jointing materials (rubber packing, nut bolts, etc.) labour, scaffolding, hydraulic testing etc. complete.					
i)	80 mm.	Joint	242.00			
ii)	100 mm.	Joint	409.00			
iii)	125 mm.	Joint	432.00			
iv)	150 mm.	Joint	804.00			
v)	200 mm.	Joint	854.00			
vi)	250 mm.	Joint	1220.00			
vii)	300 mm.	Joint	1287.00			
viii)	350 mm.	Joint	1672.00			
ix)	400 mm.	Joint	2079.00			
x)	450 mm.	Joint	2540.00			
xi)	500 mm.	Joint	2658.00			
xii)	600 mm.	Joint	2917.00			
xiii)	700 mm.	Joint	4327.00			
xiv)	750 mm.	Joint	4492.00			
xv)	800 mm.	Joint	6083.00			
xvi)	900 mm	Joint	6403.00			
xvii)	1000 mm	Joint	6749.00			
	<u>Note :Only 85 % rate shall be payable till satisfactory Hydraulic testing is given.</u>					

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
10.	Providing and supplying ISI standard D. I. specials & fitting with sealing rubber gasket of S.B.R, complete with cast iron follower gland and M. S. nut bolts coated or otherwise protected from rusting and suitable for D.I.pipes including cost of labour ,materials, and transportation to stores / site, loading and unloading excluding GST levied by GOI & GOM in all respect, complete as per IS-9523. For all types of specials, bends tees etc.					
	a) 80 to 300 mm dia.	Kg.	101.00			
	b) 350 mm & above dia.	Kg.	123.00			
	Providing and supplying ISI standard welded DI double					
11.	Providing and supplying ISI standard welded DI double flanged pipe excluding GST levied by GOI & GOM in all respect, railway freight, insurance, unloading from railway wagon, loading into truck transport to store / site, unloading, stacking etc. complete as directed by Engineer -in- charge. (for 2.75 m bare pipe)					
	i) 100 mm	Rmt.	1725.00			
	ii) 150 mm	Rmt.	2343.00			
	iii) 200 mm	Rmt.	2997.00			
	iv) 250 mm	Rmt.	4069.00			
	v) 300 mm	Rmt.	5120.00			
	vi) 350 mm	Rmt.	6669.00			
	vii) 400 mm	Rmt.	8072.00			
	viii) 450 mm	Rmt.	9646.00			
	ix) 500 mm	Rmt.	11212.00			
	x) 600 mm	Rmt.	14762.00			
	xi) 700 mm	Rmt.	19864.00			
	xii) 800 mm	Rmt.	24281.00			
	xiii) 900 mm	Rmt.	30139.00			
	xiv) 1000 mm	Rmt.	35388.00			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
12.	Hydraulic testing of C.I./D.I. pipe line to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position using water supplied by the contractor.					
			Without Rubber Rings	With Rubber Rings		
i)	80 mm.	Km	5342.00	6155.00		
ii)	100 mm.	Km	6503.00	7201.00		
iii)	125 mm.	Km	8014.00	8942.00		
iv)	150 mm.	Km	8594.00	9639.00		
v)	200 mm.	Km	11497.00	12659.00		
vii)	250 mm.	Km	14981.00	16491.00		
vii)	300 mm.	Km	16259.00	18581.00		
viii)	350 mm.	Km	20207.00	22646.00		
ix)	400 mm.	Km	24272.00	28104.00		
x)	450 mm.	Km	24272.00	29614.00		
xi)	500 mm.	Km	28104.00	34143.00		
xii)	600 mm.	Km	36930.00	45524.00		
xiii)	700 mm.	Km	47615.00	63986.00		
xiv)	750 mm.	Km	53305.00	70028.00		
xv)	800 mm.	Km	65266.00	82222.00		
xvi)	900 mm.	Km	77925.00	103126.00		
xvii)	1000 mm.	Km	92210.00	125074.00		
	B) C.I."A" Class					
i)	80 mm.	Rmt	5575.00	6852.00		
ii)	100 mm.	Rmt	6852.00	8014.00		
iii)	125 mm.	Rmt	8710.00	9639.00		
iv)	150 mm.	Rmt	9523.00	10452.00		
v)	200 mm.	Rmt	12427.00	13472.00		
vii)	250 mm.	Rmt	16259.00	17768.00		
vii)	300 mm.	Rmt	17652.00	19858.00		
viii)	350 mm.	Rmt	21833.00	24388.00		
ix)	400 mm.	Rmt	24504.00	28221.00		
x)	450 mm.	Rmt	25782.00	29846.00		
xi)	500 mm.	Rmt	30311.00	36350.00		
xii)	600 mm.	Rmt	40065.00	48543.00		
xiii)	700 mm.	Rmt	51563.00	67822.00		
xiv)	750 mm.	Rmt	57950.00	74441.00		
xv)	800 mm.	Rmt	68402.00	85125.00		
xvi)	900 mm.	Rmt	82454.00	107538.00		
xvii)	1000 mm.	Rmt	96158.00	129023.00		
	C) C.I."B" Class					
i) ii)	80	Rmt	6155.00	7201.00		

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	100 mm.	Rmt	7316.00	8710.00		
iii)	125 mm.	Rmt	9407.00	10452.00		
iv)	150 mm.	Rmt	10568.00	11729.00		
v)	200 mm.	Rmt	13472.00	15098.00		
vii)	250 mm.	Rmt	17536.00	19975.00		
vii)	300 mm.	Rmt	19162.00	21369.00		
viii)	350 mm.	Rmt	23575.00	27408.00		
ix)	400 mm.	Rmt	27408.00	31123.00		
x)	450 mm.	Rmt	27755.00	31936.00		
xi)	500 mm.	Rmt	32634.00	38556.00		
xii)	600 mm.	Rmt	43317.00	51563.00		
xiii)	700 mm.	Rmt	55744.00	71654.00		
xiv)	750 mm.	Rmt	62944.00	79319.00		
xv)	800 mm.	Rmt	73395.00	89887.00		
xvi)	900 mm.	Rmt	87099.00	111951.00		
xvii)	1000 mm.	Rmt	99294.00	131926.00		
13.	Providing and supplying C.I. detachable joints suitable for A. C. pressure pipes manufactured as per IS-1538-1993 standards of following calass and diameter including cost of insurance, railway freight, inspection charges, unloding from railway wagon, loding into truck, transporting to departmental store, unloading, stacking and cost of rubber rings, nut bolts. excluding GST levied by GOI & GOM in all respect etc. complete (IS-1538-1993)					
	Class 10/15					
	i) 80 mm.	Rmt.	254.00			
	ii) 100 mm.	Rmt.	321.00			
	iii) 125 mm.	Rmt.	432.00			
	iv) 150 mm.	Rmt.	538.00			
	v) 200 mm.	Rmt.	812.00			
	vii) 250 mm.	Rmt.	1017.00			
	vii) 300 mm.	Rmt.	1395.00			
	Class 20					
	i) 80 mm.	Rmt.	392.00			
	ii) 100 mm.	Rmt.	408.00			
	iii) 125 mm.	Rmt.	507.00			
	iv) 150 mm.	Rmt.	608.00			
	v) 200 mm.	Rmt.	817.00			
	vii) 250 mm.	Rmt.	1153.00			
	vii) 300 mm.	Rmt.	1651.00			



SECTION – I(II)

P.V.C. PIPES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
II.	P. V. C. PIPES					
1.	Providing and supplying in <u>standard lengths ISI mark rigid unplasticised PVC pipes</u> suitable for potable water with solvent cement joints including cost of couplers, as per IS specification no. 4985 / 1988 excluding GST levied by GOI and GOM in all respect, including transportation, freight charges, inspection charges, loading, unloading, conveyance to the departmental stores and stacking the same in closed shed duly protected from sun rays and rains including cost of jointing material i.e. solvent cement, etc. complete (selffit type to be jointed with cement solvent).					
Note	: 1) 10% of cost of pipes shall be considered for cost of PVC specials for estimate purpose only.					
	2) One coupler and required cement solvent shall be provided with each full length pipe cost of which is included in rates below.					
a)	<u>Working Pressure 4 Kg./Sq.cm</u>					
i)	63 mm.	Rmt	50			
ii)	75 mm.	Rmt	71			
iii)	90 mm.	Rmt	99			
iv)	110 mm.	Rmt	135			
v)	140 mm.	Rmt	226			
vi)	160 mm.	Rmt	297			
vii)	180 mm.	Rmt	406			
viii)	200 mm.	Rmt	501			
ix)	225 mm.	Rmt	641			
x)	250 mm.	Rmt	783			
xi)	280 mm.	Rmt	1041			
xii)	315 mm.	Rmt	1324			
b)	<u>Working Pressure 6 Kg. / Sq.cm</u>					
i)	63 mm.	Rmt	71			
ii)	75 mm.	Rmt	101			
iii)	90 mm.	Rmt	147			
iv)	110 mm.	Rmt	201			
v)	140 mm.	Rmt	335			
vi)	160 mm.	Rmt	433			
vii)	180 mm.	Rmt	575			
viii)	200 mm.	Rmt	736			
ix)	225 mm.	Rmt	928			
x)	250 mm.	Rmt	1158			
xi)	280 mm.	Rmt	1527			
xii)	315 mm.	Rmt	1949			
C	<u>Working Pressure 8 Kg/Sq.cm</u>					
i)	63 mm.	Rmt	98			
ii)	75 mm.	Rmt	140			
iii)	90 mm.	Rmt	198			
iv)	110 mm.	Rmt	281			
v)	140 mm.	Rmt	465			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
vi)	160 mm.	Rmt	610			
vii)	180 mm.	Rmt	807			
viii)	200 mm.	Rmt	1015			
ix)	225 mm.	Rmt	1289			
x)	250 mm.	Rmt	1612			
xi)	280 mm.	Rmt	2123			
xii)	315 mm.	Rmt	2689			
d)	<u>Working Pressure 10 Kg./Sq.cm</u>					
ii)	63 mm.	Rmt	119			
ii)	75 mm.	Rmt	169			
iii)	90 mm.	Rmt	242			
iv)	110 mm.	Rmt	342			
v)	140 mm.	Rmt	554			
vi)	160 mm.	Rmt	725			
vii)	180 mm.	Rmt	999			
viii)	200 mm.	Rmt	1235			
ix)	225 mm.	Rmt	1575			
x)	250 mm.	Rmt	1990			
xi)	280 mm.	Rmt	2503			
xii)	315 mm.	Rmt	3179			
e)	<u>Working Pressure 12.50 Kg./Sq.cm</u>					
ii)	63 mm.	Rmt	151			
ii)	75 mm.	Rmt	212			
iii)	90 mm.	Rmt	307			
iv)	110 mm.	Rmt	434			
v)	140 mm.	Rmt	707			
vi)	160 mm.	Rmt	930			
vii)	180 mm.	Rmt	1271			
viii)	200 mm.	Rmt	1576			
ix)	225 mm.	Rmt	2003			
x)	250 mm.	Rmt	2533			
xi)	280 mm.	Rmt	3188			
xii)	315 mm.	Rmt	4064			
2.	<u>Providing and supplying in standard lengths ISI mark rigid unplastised PVC</u> for potable water with rubber ring joints including cost of rubber ring as per IS-4985-1998, excluding GST levied by GOI and GOM in all respect, including transportation, freight charges, transit insurance, inspection charges, loading, unloading, conveyance to store and stacking the same in closed shed duly protected from sun rays and rains, etc. complete (with third party inspection) (socketed)					
	<u>a) Working Pressure 4 Kg./Sq.cm</u>					
i)	63 mm.	Rmt	55			
ii)	75 mm.	Rmt	77			
iii)	90 mm.	Rmt	110			
iv)	110 mm.	Rmt	151			
v)	125 mm.	Rmt	207			
vi)	140 mm.	Rmt	251			
vii)	160 mm.	Rmt	331			
viii)	180 mm.	Rmt	450			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
ix)	200 mm.	Rmt	554			
x)	225 mm.	Rmt	712			
xi)	250 mm.	Rmt	872			
xii)	280 mm.	Rmt	1156			
xiii)	315 mm.	Rmt	1469			
	<u>b) Working Pressure 6 Kg./Sq.cm</u>					
i)	63 mm.	Rmt	78			
ii)	75 mm.	Rmt	113			
iii)	90 mm.	Rmt	163			
iv)	110 mm.	Rmt	222			
v)	125 mm.	Rmt	307			
vi)	140 mm.	Rmt	373			
vii)	160 mm.	Rmt	480			
viii)	180 mm.	Rmt	641			
ix)	200 mm.	Rmt	815			
x)	225 mm.	Rmt	1030			
xi)	250 mm.	Rmt	1287			
xii)	280 mm.	Rmt	1696			
xiii)	315 mm.	Rmt	2163			
	<u>c) Working Pressure 8 Kg./Sq.cm</u>					
i)	63 mm.	Rmt	107			
ii)	75 mm.	Rmt	157			
iii)	90 mm.	Rmt	220			
iv)	110 mm.	Rmt	311			
v)	125 mm.	Rmt	429			
vi)	140 mm.	Rmt	516			
vii)	160 mm.	Rmt	677			
viii)	180 mm.	Rmt	898			
ix)	200 mm.	Rmt	1128			
x)	225 mm.	Rmt	1431			
xi)	250 mm.	Rmt	1789			
xii)	280 mm.	Rmt	2358			
xiii)	315 mm.	Rmt	2988			
	<u>d) Working Pressure 10 Kg./Sq.cm</u>					
i)	63 mm.	Rmt	132			
ii)	75 mm.	Rmt	188			
iii)	90 mm.	Rmt	268			
iv)	110 mm.	Rmt	381			
v)	125 mm.	Rmt	523			
vi)	140 mm.	Rmt	615			
vii)	160 mm.	Rmt	805			
viii)	180 mm.	Rmt	1109			
ix)	200 mm.	Rmt	1371			
x)	225 mm.	Rmt	1749			
xi)	250 mm.	Rmt	2212			
xii)	280 mm.	Rmt	2780			
xiii)	315 mm.	Rmt	3532			
	<u>e) Working Pressure 12.5 Kg./Sq.cm</u>					
i)	63 mm.	Rmt	166			
ii)	75 mm.	Rmt	235			
iii)	90 mm.	Rmt	341			
iv)	110 mm.	Rmt	484			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
v)	125 mm.	Rmt	667			
vi)	140 mm.	Rmt	785			
vii)	160 mm.	Rmt	1031			
viii)	180 mm.	Rmt	1411			
ix)	200 mm.	Rmt	1750			
x)	225 mm.	Rmt	2225			
xi)	250 mm.	Rmt	2812			
xii)	280 mm.	Rmt	3539			
xiii)	315 mm.	Rmt	4510			
3.	Providing and supplying in ISI mark rigid PVC-Q class-500 s/s pipe (push on joints) pressure pipes confirming to IS specifications no 16647-2017 inclusive cost of EPDM gasket seals on joints including all statutory duties excluding GST levied by Government of India and Government of Maharashtra in all respect including third party inspection charges of agency approved by MJP, transit insurance loading, unloading charges conveyance to the departmental store / site and stacking the same in closed shade duly protected from sunrays etc complete.					
	Note :- a) 10% cost of pipe shall be considered for the cost of O-PVC/DI compatible specials for estimate purpose b) Diameter wise overlapping lengths are respectively, 110mm 2.92%, 160mm- 3.33%, 200mm 3.75%, 250mm 4.5%, 315mm 5.42%, 400mm 6.25% a) Class - 500 PN - 12.5					
i)	110 mm.	Rmt	519			
ii)	160 mm.	Rmt	895			
iii)	200 mm.	Rmt	1226			
iv)	250 mm.	Rmt	1681			
v)	315 mm.	Rmt	2180			
vi)	400 mm.	Rmt	3360			
vii)	450 mm.	Rmt	4045			
viii)	500 mm.	Rmt	4687			
ix)	560 mm.	Rmt	6248			
x)	630 mm.	Rmt	7947			
	b) Class - 500 PN - 16					
i)	110 mm.	Rmt	622			
ii)	160 mm.	Rmt	1042			
iii)	200 mm.	Rmt	1292			
iv)	250 mm.	Rmt	1818			
v)	315 mm.	Rmt	2291			
vi)	400 mm.	Rmt	3495			
vii)	450 mm.	Rmt	4609			
viii)	500 mm.	Rmt	5751			
ix)	560 mm.	Rmt	7161			
x)	630 mm.	Rmt	9071			
	c) Class - 500 PN - 25					
i)	110 mm.	Rmt	775			
ii)	160 mm.	Rmt	1126			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
iii)	200 mm.	Rmt	1532			
iv)	250 mm.	Rmt	2144			
v)	315 mm.	Rmt	3344			
vi)	400 mm.	Rmt	5072			
vii)	450 mm.	Rmt	6496			
viii)	500 mm.	Rmt	8040			
ix)	560 mm.	Rmt	10067			
x)	630 mm.	Rmt	12730			
4.	<u>Lowering, laying and jointing with P.V.C. pipes and specials</u> of following class and diameter including cost of conveyance from stores to site of works including cost of all labour, material, except cement solvent, rubber ring, as per IS code, etc. complete (with cement solvent joint / ring fit joint).					
	<u>a) Working Pressure 4 Kg/Sq.cm</u>					
i)	63 mm.	Rmt	18.00			
ii)	75 mm.	Rmt	23.00			
iii)	90 mm.	Rmt	28.00			
iv)	110 mm.	Rmt	32.00			
v)	125 mm.	Rmt	34.00			
vi)	140 mm.	Rmt	37.00			
vii)	160 mm.	Rmt	42.00			
viii)	180 mm.	Rmt	46.00			
xi)	200 mm	Rmt	50.00			
x)	225 mm	Rmt	58.00			
xi)	250 mm	Rmt	63.00			
xii)	280 mm	Rmt	69.00			
xiii)	315 mm	Rmt	78.00			
	<u>b) Working Pressure 6 to 12.5 Kg/Sq.cm.</u>					
i)	63 mm.	Rmt	24.00			
ii)	75 mm.	Rmt	32.00			
iii)	90 mm.	Rmt	36.00			
iv)	110 mm.	Rmt	41.00			
v)	125 mm.	Rmt	44.00			
vi)	140 mm.	Rmt	48.00			
vii)	160 mm.	Rmt	51.00			
viii)	180 mm.	Rmt	58.00			
xi)	200 mm	Rmt	64.00			
x)	225 mm	Rmt	69.00			
xi)	250 mm	Rmt	76.00			
xii)	280 mm	Rmt	86.00			
xiii)	315 mm	Rmt	95.00			
xiv)	400 mm	Rmt	105.00			
xv)	450 mm	Rmt	114.00			
xvi)	500 mm	Rmt	125.00			
xvii)	560 mm	Rmt	136.00			
xviii)	630 mm	Rmt	149.00			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
5.	Hydraulic testing of PVC pipe line to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position.					
	a) Working Pressure 4 Kg/Sq.cm					
i)	63 mm.	Km	2255			
ii)	75 mm.	Km	2255			
iii)	90 mm.	Km	3383			
iv)	110 mm.	Km	3383			
v)	125 mm	Km	3947			
vi)	140 mm.	Km	4510			
vii)	160 mm.	Km	4510			
viii)	180 mm.	Km	5638			
ix)	200 mm	Km	5638			
x)	225 mm	Km	6765			
xi)	250 mm	Km	6765			
xii)	280 mm	Km	7893			
xiii)	315 mm	Km	9020			
	b) Working Pressure 6 to 12.5 Kg./Sq.cm.					
i)	63 mm.	Km	2255			
ii)	75 mm.	Km	3383			
iii)	90 mm.	Km	4510			
iv)	110 mm.	Km	4510			
v)	125 mm	Km	5074			
vi)	140 mm.	Km	5638			
vii)	160 mm.	Km	5638			
viii)	180 mm.	Km	6765			
ix)	200 mm	Km	6765			
x)	225 mm	Km	7893			
xi)	250 mm	Km	7893			
xii)	280 mm	Km	9020			
xiii)	315 mm	Km	10148			
xiv)	400 mm	Km	10148			
xv)	450 mm	Km	11275			
xvi)	500 mm	Km	11275			
xvii)	560 mm	Km	12403			
xviii)	630 mm	Km	13530			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	<u>1) Only 85% rate shall be payable till satisfactory hydraulic testing is given.</u> <u>2) Third party inspecting agency shall invariably carry out. I) Specific Gravity Test. II) Weight / Rmt. III) Ash Content Test and confirm in writing that those are within prescribed limits. This condition shall appear in tender conditions.</u> <u>3) After receipt of pipes at site, concerned Deputy Engineer shall confirm that weight of pipe for every class and diameter is not less than the prescribed standard weight as per IS-4985/1998 (Which is given in CSR). Under weight pipes shall be rejected. This condition shall appear in the tender conditions.</u>					

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SECTION – I(III)

G.I. PIPES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
III.	G. I. PIPES					
1.	Providing ISI mark G.I. pipe of following class and dia. excluding GST levied by GOI & GOM in all respect, inspection charges, transportation to stores, etc. complete as per IS-1239/2004. Note : One coupler shall be provided with each full length of pipe cost of which is included in rates below.					
a)	LIGHT					
i)	15 mm. (0.96 kg./m)	Rmt	64.00			
ii)	20 mm. (1.42 kg./m)	Rmt	95.00			
iii)	25 mm. (2.03 kg./m)	Rmt	130.00			
iv)	32 mm. (2.61 kg./m)	Rmt	165.00			
v)	40 mm. (3.29 kg./m)	Rmt	207.00			
vi)	50 mm. (4.18 kg./m)	Rmt	253.00			
vii)	65 mm. (5.92 kg./m)	Rmt	348.00			
viii)	80 mm. (6.98 kg./m)	Rmt	418.00			
ix)	100 mm. (10.20 kg./m)	Rmt	593.00			
b)	MEDIUM					
i)	15 mm. (1.23 kg./m)	Rmt	76.00			
ii)	20 mm. (1.59 kg./m)	Rmt	98.00			
iii)	25 mm. (2.40 kg./m)	Rmt	150.00			
iv)	32 mm. (3.17 kg./m)	Rmt	188.00			
v)	40 mm. (3.65 kg./m)	Rmt	217.00			
vi)	50 mm. (5.16 kg./m)	Rmt	300.00			
vii)	65 mm. (6.63 kg./m)	Rmt	381.00			
viii)	80 mm. (8.64 kg./m)	Rmt	501.00			
ix)	100 mm. (12.40 kg./m)	Rmt	714.00			
xx)	125 mm (16.70 kg/m)	Rmt	972.00			
xxi)	150 mm.(19.70 kg./m)	Rmt	1143.00			
c)	HEAVY					
i)	15 mm. (1.46 kg./m)	Rmt	87.00			
ii)	20 mm. (1.91 kg./m)	Rmt	112.00			
iii)	25 mm. (2.99 kg./m)	Rmt	175.00			
iv)	32 mm. (3.97 kg./m)	Rmt	222.00			
v)	40 mm. (4.47 kg./m)	Rmt	257.00			
vi)	50 mm. (6.24 kg./m)	Rmt	356.00			
vii)	65 mm. (8.02 kg./m)	Rmt	458.00			
viii)	80 mm. (10.30 kg./m)	Rmt	585.00			
ix)	100 mm. (14.70 kg./m)	Rmt	845.00			
x)	125 mm (18.30 kg/m)	Rmt	1046.00			
xi)	150 mm (21.80 kg./m)	Rmt	1257.00			
2.	Lowering, laying and jointing G. I. pipes and specials of following class and diameter including conveyance from stores to site of works, all labour, etc. complete either underground or in vertical position, as directed by Engineer-in-charge.					
a)	LIGHT					
i)	15 mm. (0.96 kg./m)	Rmt	26.00			
ii)	20 mm. (1.42 kg./m)	Rmt	29.00			
iii)	25 mm. (2.03 kg./m)	Rmt	36.00			
iv)	32 mm. (2.61 kg./m)	Rmt	41.00			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
v)	40 mm. (3.29 kg./m)	Rmt	50.00			
vi)	50 mm. (4.18 kg./m)	Rmt	61.00			
vii)	65 mm. (5.92 kg./m)	Rmt	88.00			
viii)	80 mm. (6.98 kg./m)	Rmt	97.00			
ix)	100 mm. (10.20 kg./m)	Rmt	117.00			
	b) MEDIUM					
i)	15 mm. (1.23 kg./m)	Rmt	28.00			
ii)	20 mm. (1.59 kg./m)	Rmt	31.00			
iii)	25 mm. (2.40 kg./m)	Rmt	37.00			
iv)	32 mm. (3.17 kg./m)	Rmt	43.00			
v)	40 mm. (3.65 kg./m)	Rmt	56.00			
vi)	50 mm. (5.16 kg./m)	Rmt	65.00			
vii)	65 mm. (6.63 kg./m)	Rmt	95.00			
viii)	80 mm. (8.64 kg./m)	Rmt	107.00			
ix)	100 mm. (12.40 kg./m)	Rmt	117.00			
x)	125 mm (16.70 kg/m)	Rmt	125.00			
xi)	150 mm.(19.70 kg./m)	Rmt	131.00			
	c) HEAVY					
i)	15 mm. (1.46 kg./m)	Rmt	30.00			
ii)	20 mm. (1.91 kg./m)	Rmt	34.00			
iii)	25 mm. (2.99 kg./m)	Rmt	40.00			
iv)	32 mm. (3.97 kg./m)	Rmt	46.00			
v)	40 mm. (4.47 kg./m)	Rmt	59.00			
vi)	50 mm. (6.24 kg./m)	Rmt	74.00			
vii)	65 mm. (8.02 kg./m)	Rmt	103.00			
viii)	80 mm. (10.30 kg./m)	Rmt	125.00			
ix)	100 mm. (14.70 kg./m)	Rmt	117.00			
x)	125 mm (18.30 kg/m)	Rmt	130.00			
xi)	150 mm (21.80 kg./m)	Rmt	140.00			
	Note : Only 85% rate shall be payable till satisfactory hydraulic testing is given.					
3	Hydraulic testing of G. I. pipe line to specified pressure including cost of all materials and labour and water for testing for the length upto 1km using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour operation charges etc. required for testing, The rates under this item shall also include cost of retesting if necessary and reinstating to original position.					
	a) LIGHT					
i)	15 mm. (0.96 kg./m)	Km	2255.00			
ii)	20 mm. (1.42 kg./m)	Km	3383.00			
iii)	25 mm. (2.03 kg./m)	Km	3383.00			
iv)	32 mm. (2.61 kg./m)	Km	4510.00			
v)	40 mm. (3.29 kg./m)	Km	5638.00			
vi)	50 mm. (4.18 kg./m)	Km	6765.00			
vii)	65 mm. (5.92 kg./m)	Km	10148.00			
viii)	80 mm. (6.98 kg./m)	Km	11275.00			
ix)	100 mm. (10.20 kg./m)	Km	12403.00			
	b) MEDIUM					
i)	15 mm. (1.23 kg./m)	Km	3383.00			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
ii)	20 mm. (1.59 kg./m)	Km	3383.00			
iii)	25 mm. (2.40 kg./m)	Km	4510.00			
iv)	32 mm. (3.17 kg./m)	Km	4510.00			
v)	40 mm. (3.65 kg./m)	Km	5638.00			
vi)	50 mm. (5.16 kg./m)	Km	6765.00			
vii)	65 mm. (6.63 kg./m)	Km	10148.00			
viii)	80 mm. (8.64 kg./m)	Km	11275.00			
ix)	100 mm. (12.40 kg./m)	Km	12403.00			
x)	125 mm (16.70 kg/m)	Km	13530.00			
xi)	150 mm.(19.70 kg./m)	Km	14658.00			
c)	HEAVY					
i)	15 mm. (1.46 kg./m)	Km	3383.00			
ii)	20 mm. (1.91 kg./m)	Km	3383.00			
iii)	25 mm. (2.99 kg./m)	Km	4510.00			
iv)	32 mm. (3.97 kg./m)	Km	5638.00			
v)	40 mm. (4.47 kg./m)	Km	6765.00			
vi)	50 mm. (6.24 kg./m)	Km	7893.00			
vii)	65 mm. (8.02 kg./m)	Km	11275.00			
viii)	80 mm. (10.30 kg./m)	Km	13530.00			
ix)	100 mm. (14.70 kg./m)	Km	12403.00			
x)	125 mm (18.30 kg/m)	Km	14658.00			
xi)	150 mm (21.80 kg./m)	Km	15785.00			

SECTION – I(IV)

**D.I. SPECIALS &
D.I. MECHANICAL JOINTS**

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	<u>(IV) D.I. Specials & D.I. Mechanical Joints :</u>			
<u>I</u>	D.I. Socket and flanged fittings :-Providing and supplying <u>D.I. fitting with ISI mark</u> socket pushon joints or flanged joints confirming to table 12 to 31 of IS 9523/2000 upto latest amendments including cost of SBR/ EDPM tyton rings. Fittings should be with internally ordinary portland cement mortor lined and externally metallic zinc coating/zinc rich paint with finishing layer of black bitumen coating including transportation & excluding all statutory duties and taxes such as GST levied by Gol and GoM in all respect etc. complete.			
	Diameter in mm	Unit		
<u>I</u>	<u>Double socket bend 90 degree</u>			
	80 mm dia	Nos	1091.00	
	100 mm dia	Nos	1360.00	
	150 mm dia	Nos	2450.00	
	200 mm dia	Nos	3116.00	
	250 mm dia	Nos	5958.00	
	300 mm dia	Nos	8269.00	
	350 mm dia	Nos	11679.00	
	400 mm dia	Nos	15438.00	
	450 mm dia	Nos	20136.00	
	500 mm dia	Nos	25387.00	
	600 mm dia	Nos	41220.00	
	700 mm dia	Nos	64057.00	
<u>II</u>	<u>Double socket bend 45 degree</u>			
	80 mm dia	Nos	1010.00	
	100 mm dia	Nos	1225.00	
	150 mm dia	Nos	1895.00	
	200 mm dia	Nos	3221.00	
	250 mm dia	Nos	4533.00	
	300 mm dia	Nos	6347.00	
	350 mm dia	Nos	8726.00	
	400 mm dia	Nos	11410.00	
	450 mm dia	Nos	14497.00	
	500 mm dia	Nos	17840.00	
	600 mm dia	Nos	27171.00	
	700 mm dia	Nos	41503.00	
<u>III</u>	<u>Double socket bend 22.50 degree</u>			
	80 mm dia	Nos	884.00	
	100 mm dia	Nos	1136.00	
	150 mm dia	Nos	1761.00	
	200 mm dia	Nos	2718.00	
	250 mm dia	Nos	3691.00	
	300 mm dia	Nos	5440.00	
	350 mm dia	Nos	7174.00	
	400 mm dia	Nos	8898.00	
	450 mm dia	Nos	11410.00	
	500 mm dia	Nos	13997.00	
	600 mm dia	Nos	21681.00	
	700 mm dia	Nos	32549.00	
<u>IV</u>	<u>Double socket bend 11.25 degree</u>			
	80 mm dia	Nos	884.00	
	100 mm dia	Nos	1091.00	
	150 mm dia	Nos	1628.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	200 mm dia	Nos	2584.00	
	250 mm dia	Nos	3581.00	
	300 mm dia	Nos	4823.00	
	350 mm dia	Nos	5720.00	
	400 mm dia	Nos	7718.00	
	450 mm dia	Nos	10202.00	
	500 mm dia	Nos	12350.00	
	600 mm dia	Nos	18114.00	
	700 mm dia	Nos	26156.00	
V	Double socket concentric reducer			
	100 x 80 mm dia	Nos	1010.00	
	150 x 80 mm dia	Nos	1628.00	
	150 x 100 mm dia	Nos	1761.00	
	200 x 80 mm dia	Nos	2526.00	
	200 x 100 mm dia	Nos	2526.00	
	200 x 150 mm dia	Nos	2680.00	
	250 x 80 mm dia	Nos	3497.00	
	250 x 100 mm dia	Nos	3366.00	
	250 x 150 mm dia	Nos	3713.00	
	250 x 200 mm dia	Nos	3581.00	
	300 x 100 mm dia	Nos	4921.00	
	300 x 150 mm dia	Nos	5052.00	
	300 x 200 mm dia	Nos	4957.00	
	300 x 250 mm dia	Nos	4662.00	
	350 x 200 mm dia	Nos	6900.00	
	350 x 250 mm dia	Nos	6719.00	
	350 x 300 mm dia	Nos	6628.00	
	400 x 200 mm dia	Nos	9129.00	
	400 x 250 mm dia	Nos	8322.00	
	400 x 300 mm dia	Nos	8055.00	
	400 x 350 mm dia	Nos	7174.00	
	450 x 350 mm dia	Nos	9665.00	
	450 x 400 mm dia	Nos	8898.00	
	500 x 350 mm dia	Nos	13052.00	
	500 x 400 mm dia	Nos	12350.00	
	500 x 450 mm dia	Nos	11663.00	
	600 x 300 mm dia	Nos	19760.00	
	600 x 350 mm dia	Nos	20337.00	
	600 x 400 mm dia	Nos	19211.00	
	600 x 450 mm dia	Nos	18663.00	
	600 x 500 mm dia	Nos	17015.00	
	700 x 450 mm dia	Nos	32388.00	
	700 x 500 mm dia	Nos	28818.00	
	700 x 600 mm dia	Nos	30697.00	
	800 x 600 mm dia	Nos	40198.00	
	800 x 700 mm dia	Nos	30141.00	
VI	All Socket Tee			
	80 x 80 mm dia	Nos	1493.00	
	100 x 80 mm dia	Nos	1761.00	
	100 x 100 mm dia	Nos	1895.00	
	150 x 80 mm dia	Nos	2526.00	
	150 x 100 mm dia	Nos	2718.00	
	150 x 150 mm dia	Nos	3121.00	
	200 x 80 mm dia	Nos	3542.00	
	200 x 100 mm dia	Nos	3809.00	
	200 x 150 mm dia	Nos	4346.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	200 x 200 mm dia	Nos	5055.00	
	250 x 80 mm dia	Nos	4792.00	
	250 x 100 mm dia	Nos	5091.00	
	250 x 150 mm dia	Nos	5513.00	
	250 x 200 mm dia	Nos	6476.00	
	250 x 250 mm dia	Nos	7383.00	
	300 x 80 mm dia	Nos	6068.00	
	300 x 100 mm dia	Nos	6201.00	
	300 x 150 mm dia	Nos	7447.00	
	300 x 200 mm dia	Nos	8269.00	
	300 x 250 mm dia	Nos	9067.00	
	300 x 300 mm dia	Nos	10102.00	
	350 x 80 mm dia	Nos	7785.00	
	350 x 100 mm dia	Nos	7920.00	
	350 x 150 mm dia	Nos	9129.00	
	350 x 200 mm dia	Nos	10067.00	
	350 x 250 mm dia	Nos	12082.00	
	350 x 300 mm dia	Nos	13424.00	
	350 x 350 mm dia	Nos	13692.00	
	400 x 80 mm dia	Nos	9800.00	
	400 x 100 mm dia	Nos	9665.00	
	400 x 150 mm dia	Nos	12082.00	
	400 x 200 mm dia	Nos	12350.00	
	400 x 250 mm dia	Nos	14095.00	
	400 x 300 mm dia	Nos	15797.00	
	400 x 400 mm dia	Nos	17452.00	
	450 x 100 mm dia	Nos	12082.00	
	450 x 150 mm dia	Nos	14095.00	
	450 x 200 mm dia	Nos	15438.00	
	450 x 250 mm dia	Nos	16070.00	
	450 x 300 mm dia	Nos	17977.00	
	450 x 350 mm dia	Nos	20136.00	
	450 x 400 mm dia	Nos	22151.00	
	450 x 450 mm dia	Nos	22553.00	
	500 x 100 mm dia	Nos	14743.00	
	500 x 150 mm dia	Nos	17153.00	
	500 x 200 mm dia	Nos	17840.00	
	500 x 250 mm dia	Nos	20583.00	
	500 x 300 mm dia	Nos	21957.00	
	500 x 400 mm dia	Nos	25387.00	
VII	Double Socket Tee with Flange branch-PN-10			
	80 x 80 mm dia	Nos	1854.00	
	100 x 80 mm dia	Nos	1986.00	
	100 x 100 mm dia	Nos	2118.00	
	150 x 80 mm dia	Nos	2780.00	
	150 x 100 mm dia	Nos	2846.00	
	150 x 150 mm dia	Nos	3574.00	
	200 x 80 mm dia	Nos	3838.00	
	200 x 100 mm dia	Nos	4102.00	
	200 x 150 mm dia	Nos	4765.00	
	200 x 200 mm dia	Nos	5493.00	
	250 x 80 mm dia	Nos	5020.00	
	250 x 100 mm dia	Nos	5089.00	
	250 x 150 mm dia	Nos	6241.00	
	250 x 200 mm dia	Nos	7055.00	
	250 x 250 mm dia	Nos	8141.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	300 x 80 mm dia	Nos	6513.00	
	300 x 100 mm dia	Nos	6785.00	
	300 x 150 mm dia	Nos	7734.00	
	300 x 200 mm dia	Nos	8820.00	
	300 x 250 mm dia	Nos	10042.00	
	300 x 300 mm dia	Nos	10855.00	
	350 x 80 mm dia	Nos	8155.00	
	350 x 100 mm dia	Nos	8297.00	
	350 x 150 mm dia	Nos	9843.00	
	350 x 200 mm dia	Nos	10688.00	
	350 x 250 mm dia	Nos	12658.00	
	350 x 300 mm dia	Nos	15469.00	
	350 x 350 mm dia	Nos	16031.00	
	400 x 80 mm dia	Nos	9843.00	
	400 x 100 mm dia	Nos	10266.00	
	400 x 150 mm dia	Nos	11251.00	
	400 x 200 mm dia	Nos	12938.00	
	400 x 250 mm dia	Nos	15469.00	
	400 x 300 mm dia	Nos	16031.00	
	400 x 400 mm dia	Nos	20392.00	
	450 x 80 mm dia	Nos	12235.00	
	450 x 100 mm dia	Nos	12375.00	
	450 x 150 mm dia	Nos	13782.00	
	450 x 200 mm dia	Nos	15188.00	
	450 x 250 mm dia	Nos	16876.00	
	450 x 300 mm dia	Nos	18845.00	
	450 x 350 mm dia	Nos	23907.00	
	450 x 400 mm dia	Nos	24049.00	
	450 x 450 mm dia	Nos	24486.00	
	500 x 80 mm dia	Nos	14663.00	
	500 x 100 mm dia	Nos	14807.00	
	500 x 150 mm dia	Nos	17683.00	
	500 x 200 mm dia	Nos	18114.00	
	500 x 250 mm dia	Nos	21563.00	
	500 x 300 mm dia	Nos	22139.00	
	500 x 400 mm dia	Nos	26021.00	
	<u>VIII Flange Socket-PN-10</u>			
	80 mm dia	Nos	953.00	
	100 mm dia	Nos	1071.00	
	150 mm dia	Nos	1668.00	
	200 mm dia	Nos	2499.00	
	250 mm dia	Nos	3287.00	
	300 mm dia	Nos	4314.00	
	350 mm dia	Nos	5568.00	
	400 mm dia	Nos	6834.00	
	450 mm dia	Nos	7657.00	
	500 mm dia	Nos	9316.00	
	600 mm dia	Nos	13586.00	
	700 mm dia	Nos	23478.00	
	<u>IX Flange Spigot-PN-10</u>			
	80 mm dia	Nos	939.00	
	100 mm dia	Nos	1183.00	
	150 mm dia	Nos	1895.00	
	200 mm dia	Nos	2720.00	
	250 mm dia	Nos	3839.00	
	300 mm dia	Nos	4908.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	350 mm dia	Nos	7214.00	
	400 mm dia	Nos	8227.00	
	450 mm dia	Nos	10504.00	
	500 mm dia	Nos	9636.00	
	600 mm dia	Nos	20184.00	
	700 mm dia	Nos	30419.00	
X	<u>Blank Flange -PN-1</u>			
	80 mm dia	Nos	488.00	
	100 mm dia	Nos	590.00	
	150 mm dia	Nos	976.00	
	200 mm dia	Nos	1342.00	
	250 mm dia	Nos	2126.00	
	300 mm dia	Nos	3053.00	
	350 mm dia	Nos	4363.00	
	400 mm dia	Nos	5420.00	
	450 mm dia	Nos	7403.00	
	500 mm dia	Nos	8775.00	
	600 mm dia	Nos	12691.00	
	700 mm dia	Nos	26399.00	
XI	<u>Double Flange Bend 90 Deg -PN-10</u>			
	80 mm dia	Nos	1166.00	
	100 mm dia	Nos	1399.00	
	150 mm dia	Nos	2518.00	
	200 mm dia	Nos	3670.00	
	250 mm dia	Nos	6524.00	
	300 mm dia	Nos	8827.00	
	350 mm dia	Nos	11610.00	
	400 mm dia	Nos	14890.00	
	450 mm dia	Nos	21453.00	
	500 mm dia	Nos	23713.00	
	600 mm dia	Nos	38148.00	
	700 mm dia	Nos	73097.00	
XII	<u>Double Flange Bend 45 Deg -PN-10</u>			
	80 mm dia	Nos	1107.00	
	100 mm dia	Nos	1399.00	
	150 mm dia	Nos	2214.00	
	200 mm dia	Nos	3206.00	
	250 mm dia	Nos	4879.00	
	300 mm dia	Nos	9171.00	
	350 mm dia	Nos	9717.00	
	400 mm dia	Nos	12367.00	
	450 mm dia	Nos	15142.00	
	500 mm dia	Nos	23807.00	
	600 mm dia	Nos	35402.00	
	700 mm dia	Nos	50503.00	
XIII	<u>Double Flange Duck Foot Bend -PN-10</u>			
	80 mm dia	Nos	1790.00	
	100 mm dia	Nos	2237.00	
	150 mm dia	Nos	3858.00	
	200 mm dia	Nos	6054.00	
	250 mm dia	Nos	9674.00	
	300 mm dia	Nos	13458.00	
	350 mm dia	Nos	19622.00	
	400 mm dia	Nos	24229.00	
	450 mm dia	Nos	34322.00	
	500 mm dia	Nos	43712.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	600 mm dia	Nos	61216.00	
	700 mm dia	Nos	106913.00	
XIV	All Flange Tee -PN-10			
	80 x 80 mm dia	Nos	1865.00	
	100 x 80 mm dia	Nos	2098.00	
	100 x 100 mm dia	Nos	2214.00	
	150 x 80 mm dia	Nos	3263.00	
	150 x 100 mm dia	Nos	3380.00	
	150 x 150 mm dia	Nos	3730.00	
	200 x 80 mm dia	Nos	4779.00	
	200 x 100 mm dia	Nos	5036.00	
	200 x 150 mm dia	Nos	5246.00	
	200 x 200 mm dia	Nos	5712.00	
	250 x 80 mm dia	Nos	6486.00	
	250 x 100 mm dia	Nos	7762.00	
	250 x 150 mm dia	Nos	7362.00	
	250 x 200 mm dia	Nos	9075.00	
	250 x 250 mm dia	Nos	9195.00	
	300 x 80 mm dia	Nos	7777.00	
	300 x 100 mm dia	Nos	10340.00	
	300 x 150 mm dia	Nos	9080.00	
	300 x 200 mm dia	Nos	11343.00	
	300 x 250 mm dia	Nos	11109.00	
	300 x 300 mm dia	Nos	13494.00	
	350 x 80 mm dia	Nos	11505.00	
	350 x 100 mm dia	Nos	14133.00	
	350 x 150 mm dia	Nos	13190.00	
	350 x 200 mm dia	Nos	14839.00	
	350 x 250 mm dia	Nos	15960.00	
	350 x 300 mm dia	Nos	17285.00	
	350 x 350 mm dia	Nos	19306.00	
	400 x 80 mm dia	Nos	13837.00	
	400 x 100 mm dia	Nos	17585.00	
	400 x 150 mm dia	Nos	15797.00	
	400 x 200 mm dia	Nos	18297.00	
	400 x 250 mm dia	Nos	19064.00	
	400 x 300 mm dia	Nos	19937.00	
	400 x 400 mm dia	Nos	21453.00	
	450 x 100	Nos	22343.00	
	450 x 150 mm dia	Nos	17883.00	
	450 x 200 mm dia	Nos	23471.00	
	450 x 250 mm dia	Nos	21179.00	
	450 x 300 mm dia	Nos	22012.00	
	450 x 350 mm dia	Nos	25237.00	
	450 x 400 mm dia	Nos	25170.00	
	450 x 450 mm dia	Nos	28393.00	
	500 x 100 mm dia	Nos	27064.00	
	500 x 150 mm dia	Nos	27450.00	
	500 x 200 mm dia	Nos	27708.00	
	500 x 250 mm dia	Nos	28352.00	
	500 x 300 mm dia	Nos	34018.00	
	500 x 400 mm dia	Nos	34520.00	
	500 x 500 mm dia	Nos	37614.00	
	600 x 100 mm dia	Nos	44678.00	
	600 x 150 mm dia	Nos	45141.00	
	600 x 200 mm dia	Nos	44779.00	

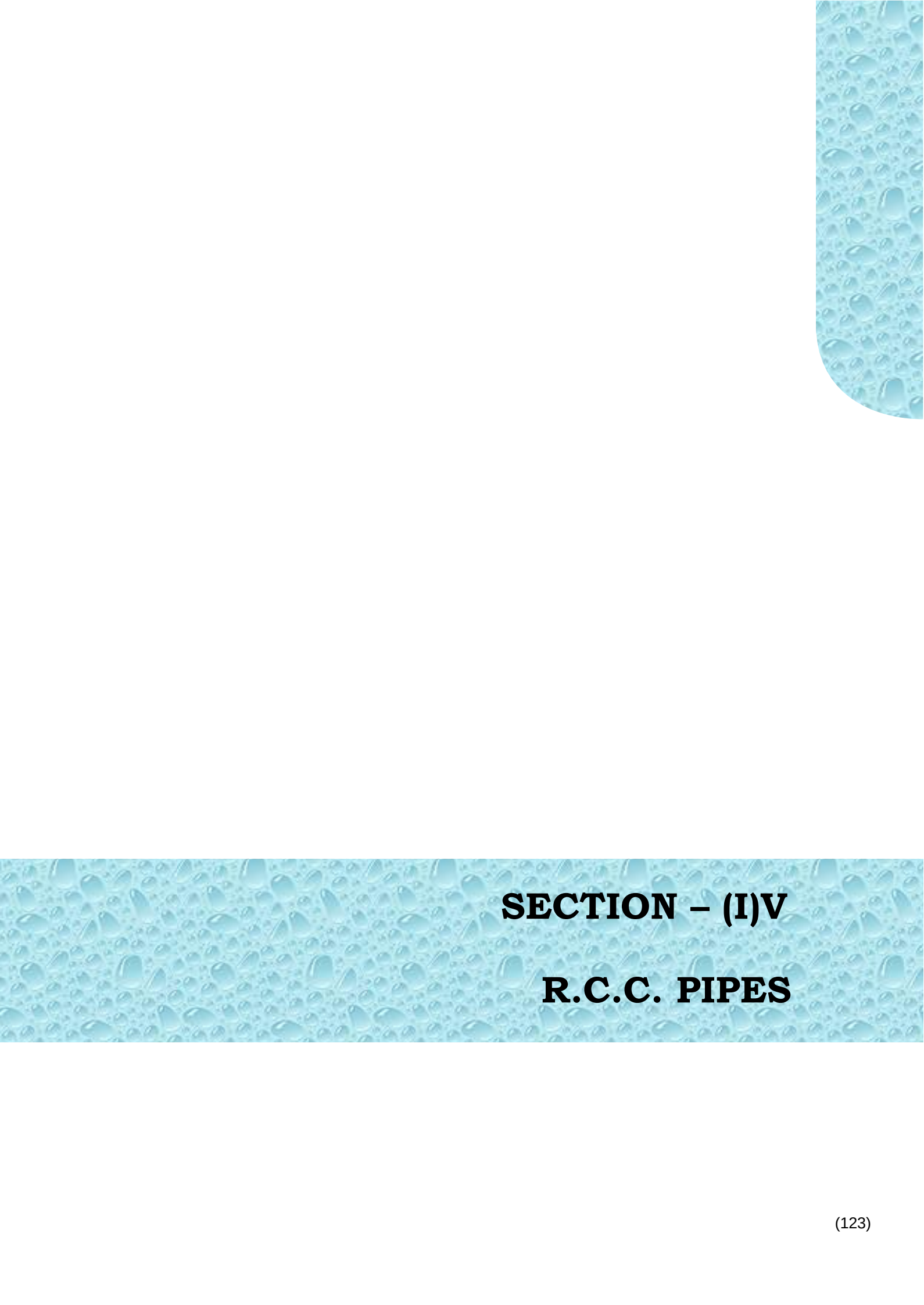
Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	600 x 250 mm dia	Nos	47941.00	
	600 x 300 mm dia	Nos	46467.00	
	600 x 400 mm dia	Nos	48275.00	
	600 x 500 mm dia	Nos	48312.00	
	600 x 600 mm dia	Nos	53406.00	
XV	Double Socket Level Invert Flange Branch Tee PN10			
	200 x 80 mm dia	Nos	3334.00	
	250 x 80 mm dia	Nos	4347.00	
	300 x 80 mm dia	Nos	5802.00	
	350 x 80 mm dia	Nos	7249.00	
	350 x 100 mm dia	Nos	7926.00	
	400 x 100 mm dia	Nos	9478.00	
	450 x 80 mm dia	Nos	11522.00	
	450 x 100 mm dia	Nos	11766.00	
	500 x 80 mm dia	Nos	13214.00	
	500 x 100 mm dia	Nos	14464.00	
XVI	Cap			
	80 mm dia	Nos	445.00	
	100 mm dia	Nos	573.00	
	150 mm dia	Nos	1017.00	
	200 mm dia	Nos	1812.00	
	250 mm dia	Nos	2179.00	
	300 mm dia	Nos	3435.00	
	350 mm dia	Nos	5557.00	
	400 mm dia	Nos	7249.00	
	450 mm dia	Nos	9181.00	
	500 mm dia	Nos	11238.00	
	600 mm dia	Nos	15684.00	
	700 mm dia	Nos	27827.00	
XVII	Plug			
	80 mm dia	Nos	326.00	
	100 mm dia	Nos	557.00	
	150 mm dia	Nos	989.00	
	200 mm dia	Nos	1531.00	
	250 mm dia	Nos	2118.00	
	300 mm dia	Nos	3339.00	
	350 mm dia	Nos	5315.00	
	400 mm dia	Nos	6282.00	
	450 mm dia	Nos	8318.00	
	500 mm dia	Nos	10127.00	
	600 mm dia	Nos	14995.00	
	D.I. FITTINGS (Mechanical Joints)			
1.	Providing and supplying D.I. fittings with ISI mark Mechanical joint confirming to tables 12 to table 31 of IS 9523/2000 upto latest amendments including cost of SBR/EDPM gaskets, Nuts, Bolts, Washers and Ductile iron follower glands. Fittings should be with internally Ordinary portland cement mortar lined and externally metallic zinc coating/zinc rich paint with finishing layer of black bitumen coating including transportation and excluding all statutory duties and taxes such as GST levied by GoI and GoM in all respect etc. complete.			
I	MJ Collar/Coupling			
	80 mm dia	Nos	2098.00	
	100 mm dia	Nos	2292.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	150 mm dia	Nos	2805.00	
	200 mm dia	Nos	5015.00	
	250 mm dia	Nos	6635.00	
	300 mm dia	Nos	8600.00	
	350 mm dia	Nos	12167.00	
	400 mm dia	Nos	15223.00	
	450 mm dia	Nos	17619.00	
	500 mm dia	Nos	22771.00	
	600 mm dia	Nos	28761.00	
	700 mm dia	Nos		
II	<u>Double Socket Bend 90 degree</u>			
	80 mm dia	Nos	1126.00	
	100 mm dia	Nos	1418.00	
	150 mm dia	Nos	2445.00	
	200 mm dia	Nos	3669.00	
	250 mm dia	Nos	5200.00	
	300 mm dia	Nos	6949.00	
	350 mm dia	Nos	10114.00	
	400 mm dia	Nos	13023.00	
	450 mm dia	Nos	16844.00	
	500 mm dia	Nos	19211.00	
	600 mm dia	Nos	28060.00	
III	<u>Double Socket Bend 45 degree</u>			
	80 mm dia	Nos	1126.00	
	100 mm dia	Nos	1320.00	
	150 mm dia	Nos	2066.00	
	200 mm dia	Nos	3154.00	
	250 mm dia	Nos	4242.00	
	300 mm dia	Nos	5930.00	
	350 mm dia	Nos	8819.00	
	400 mm dia	Nos	11254.00	
	450 mm dia	Nos	12867.00	
	500 mm dia	Nos	14987.00	
	600 mm dia	Nos	21524.00	
IV	<u>Double Socket Bend 22.5 degree</u>			
	80 mm dia	Nos	1040.00	
	100 mm dia	Nos	1320.00	
	150 mm dia	Nos	1980.00	
	200 mm dia	Nos	2825.00	
	250 mm dia	Nos	3766.00	
	300 mm dia	Nos	5270.00	
	350 mm dia	Nos	7629.00	
	400 mm dia	Nos	9306.00	
	450 mm dia	Nos	11687.00	
	500 mm dia	Nos	13950.00	
	600 mm dia	Nos	18015.00	
V	<u>Double Socket Bend 11.25 degree</u>			
	80 mm dia	Nos	1040.00	
	100 mm dia	Nos	1365.00	
	150 mm dia	Nos	1883.00	
	200 mm dia	Nos	2727.00	
	250 mm dia	Nos	3582.00	
	300 mm dia	Nos	4805.00	
	350 mm dia	Nos	6601.00	
	400 mm dia	Nos	8495.00	
	450 mm dia	Nos	11002.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	500 mm dia	Nos	13148.00	
	600 mm dia	Nos	16341.00	
VI	<u>Double socket concentric reducer</u>			
	100 x 80 mm dia	Nos	1853.00	
	150 x 80 mm dia	Nos	2670.00	
	150 x 100 mm dia	Nos	2910.00	
	200 x 80 mm dia	Nos	3757.00	
	200 x 100 mm dia	Nos	3770.00	
	200 x 150 mm dia	Nos	4194.00	
	250 x 80 mm dia	Nos	4913.00	
	250 x 100 mm dia	Nos	5136.00	
	250 x 150 mm dia	Nos	5475.00	
	250 x 200 mm dia	Nos	5475.00	
	300 x 100 mm dia	Nos	6810.00	
	300 x 150 mm dia	Nos	7145.00	
	300 x 200 mm dia	Nos	6867.00	
	300 x 250 mm dia	Nos	7369.00	
	350 x 200 mm dia	Nos	10379.00	
	350 x 300 mm dia	Nos	10798.00	
	400 x 200 mm dia	Nos	12868.00	
	400 x 300 mm dia	Nos	13111.00	
	400 x 350 mm dia	Nos	12328.00	
	450 x 400 mm dia	Nos	14965.00	
	500 x 300 mm dia	Nos	19980.00	
	500 x 350 mm dia	Nos	18540.00	
	500 x 400 mm dia	Nos	18290.00	
	600 x 350 mm dia	Nos	25707.00	
	600 x 400 mm dia	Nos	25430.00	
	600 x 500 mm dia	Nos	23674.00	
VII	<u>All Socket Tee</u>			
	80 x 80 mm dia	Nos	2518.00	
	100 x 80 mm dia	Nos	2959.00	
	100 x 100 mm dia	Nos	3180.00	
	150 x 80 mm dia	Nos	4285.00	
	150 x 100 mm dia	Nos	4507.00	
	150 x 150 mm dia	Nos	5186.00	
	200 x 80 mm dia	Nos	5577.00	
	200 x 100 mm dia	Nos	5986.00	
	200 x 150 mm dia	Nos	6802.00	
	200 x 200 mm dia	Nos	7952.00	
	250 x 80 mm dia	Nos	7244.00	
	250 x 100 mm dia	Nos	7619.00	
	250 x 150 mm dia	Nos	8281.00	
	250 x 200 mm dia	Nos	9625.00	
	250 x 250 mm dia	Nos	10645.00	
	300 x 80 mm dia	Nos	9167.00	
	300 x 100 mm dia	Nos	9387.00	
	300 x 150 mm dia	Nos	10952.00	
	300 x 200 mm dia	Nos	11989.00	
	300 x 250 mm dia	Nos	13314.00	
	300 x 300 mm dia	Nos	14505.00	
	350 x 80 mm dia	Nos	13179.00	
	350 x 100 mm dia	Nos	13434.00	
	350 x 150 mm dia	Nos	14965.00	
	350 x 200 mm dia	Nos	16154.00	
	350 x 250 mm dia	Nos	18791.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	350 x 300 mm dia	Nos	20831.00	
	350 x 350 mm dia	Nos	22192.00	
	400 x 80 mm dia	Nos	16835.00	
	400 x 100 mm dia	Nos	16750.00	
	400 x 150 mm dia	Nos	19705.00	
	400 x 200 mm dia	Nos	20319.00	
	400 x 250 mm dia	Nos	22021.00	
	400 x 300 mm dia	Nos	23978.00	
	400 x 400 mm dia	Nos	28143.00	
	450 x 100 mm dia	Nos	20342.00	
	450 x 150 mm dia	Nos	23038.00	
	450 x 200 mm dia	Nos	23528.00	
	450 x 250 mm dia	Nos	24658.00	
	450 x 300 mm dia	Nos	27123.00	
	450 x 350 mm dia	Nos	32352.00	
	450 x 400 mm dia	Nos	32995.00	
	450 x 450 mm dia	Nos	34181.00	
	500 x 100 mm dia	Nos	21295.00	
	500 x 150 mm dia	Nos	24426.00	
	500 x 200 mm dia	Nos	24928.00	
	500 x 250 mm dia	Nos	29993.00	
	500 x 300 mm dia	Nos	30940.00	
	500 x 400	Nos	34573.00	
<u>VIII Double Socket Tee with Flange branch-PN-10</u>				
	80 x 80 mm dia	Nos	2746.00	
	100 x 80 mm dia	Nos	3228.00	
	100 x 100	Nos	3469.00	
	150 x 80 mm dia	Nos	4675.00	
	150 x 100 mm dia	Nos	4916.00	
	150 x 150 mm dia	Nos	5657.00	
	200 x 80 mm dia	Nos	6084.00	
	200 x 100 mm dia	Nos	6530.00	
	200 x 150 mm dia	Nos	7420.00	
	200 x 200 mm dia	Nos	8675.00	
	250 x 80 mm dia	Nos	7903.00	
	250 x 100	Nos	8311.00	
	250 x 150 mm dia	Nos	9034.00	
	250 x 200 mm dia	Nos	10500.00	
	250 x 250 mm dia	Nos	11613.00	
	300 x 80 mm dia	Nos	9999.00	
	300 x 100 mm dia	Nos	10240.00	
	300 x 150 mm dia	Nos	11947.00	
	300 x 200 mm dia	Nos	13078.00	
	300 x 250 mm dia	Nos	14525.00	
	300 x 300 mm dia	Nos	15824.00	
	350 x 80 mm dia	Nos	14377.00	
	350 x 100 mm dia	Nos	14655.00	
	350 x 150 mm dia	Nos	16324.00	
	350 x 200 mm dia	Nos	17623.00	
	350 x 250 mm dia	Nos	20499.00	
	350 x 300 mm dia	Nos	22724.00	
	350 x 350 mm dia	Nos	24209.00	
	400 x 80 mm dia	Nos	18334.00	
	400 x 100 mm dia	Nos	18272.00	
	400 x 150 mm dia	Nos	21497.00	
	400 x 200 mm dia	Nos	22166.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	400 x 250 mm dia	Nos	24023.00	
	400 x 300 mm dia	Nos	26158.00	
	400 x 400 mm dia	Nos	30702.00	
	450 x 80	Nos	22191.00	
	450 x 100 mm dia	Nos	25133.00	
	450 x 150 mm dia	Nos	25668.00	
	450 x 200 mm dia	Nos	26899.00	
	450 x 250 mm dia	Nos	29589.00	
	450 x 300 mm dia	Nos	35293.00	
	450 x 350 mm dia	Nos	35995.00	
	450 x 400 mm dia	Nos	37289.00	
	450 x 450 mm dia	Nos	23231.00	
	500 x 80 mm dia	Nos	26647.00	
	500 x 100 mm dia	Nos	27194.00	
	500 x 150 mm dia	Nos	32719.00	
	500 x 200 mm dia	Nos	33753.00	
	500 x 250 mm dia	Nos	37716.00	
	500 x 300 mm dia	Nos	32124.00	
	500 x 400 mm dia	Nos	36213.00	
	500 x 500 mm dia	Nos	42500.00	
<u>IX</u>	<u>Flange Socket-PN-10</u>			
	80 mm dia	Nos	1452.00	
	100 mm dia	Nos	1594.00	
	150 mm dia	Nos	2417.00	
	200 mm dia	Nos	3369.00	
	250 mm dia	Nos	4642.00	
	300 mm dia	Nos	6073.00	
	350 mm dia	Nos	9016.00	
	400 mm dia	Nos	10936.00	
	450 mm dia	Nos	12270.00	
	500 mm dia	Nos	14692.00	
	600 mm dia	Nos	20452.00	

The page features a light blue background with a pattern of water droplets. A vertical strip of this pattern is on the right side, and a horizontal band is at the bottom. The text is centered in the bottom band.

SECTION – (I)V

R.C.C. PIPES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	<u>V. R.C.C. PIPES</u>					
1.	<u>Providing ISI standard R.C.C. pipes</u> in standard lengths of following class and diameter suitable for either collar joints or rubber ring joints, excluding GST levied by GOI & GOM in all respect including inspection charges, transport to departmental stores, unloading and stacking etc. complete as per IS-458/1988.					
	<u>Note :One collar should be supplied with each full length plain ended RCC pipe, cost including in rates below. One rubber ring should be supplied with each full length of socketed pipe, cost included in rates below.</u>					
a)	<u>Class 'P-I'</u>		Collar Joints	Rubber Ring Joints		
i)	80 mm.	Rmt	272.00	240.00		
ii)	100 mm.	Rmt	284.00	258.00		
iii)	150 mm.	Rmt	300.00	266.00		
iv)	200 mm.	Rmt	348.00	312.00		
v)	225 mm.	Rmt	397.00	357.00		
vi)	250 mm.	Rmt	435.00	390.00		
vii)	300 mm.	Rmt	556.00	497.00		
viii)	350 mm.	Rmt	599.00	538.00		
ix)	400 mm.	Rmt	760.00	687.00		
x)	450 mm.	Rmt	935.00	844.00		
xi)	500 mm.	Rmt	1126.00	1013.00		
xii)	600 mm.	Rmt	1419.00	1280.00		
xiii)	700 mm.	Rmt	1849.00	1663.00		
xiv)	800 mm.	Rmt	2134.00	1919.00		
xv)	900 mm.	Rmt	2685.00	2417.00		
xvi)	1000 mm.	Rmt	3147.00	2834.00		
xvii)	1100 mm.	Rmt	3574.00	3218.00		
xviii)	1200 mm.	Rmt	4294.00	3869.00		
			Collar Joints	Rubber Ring Joints		
b)	<u>Class 'P-II'</u>					
i)	80 mm.	Rmt	290.00	256.00		
ii)	100 mm.	Rmt	308.00	277.00		
iii)	150 mm.	Rmt	369.00	333.00		
iv)	200 mm.	Rmt	496.00	450.00		
v)	225 mm.	Rmt	588.00	530.00		
vi)	250 mm.	Rmt	637.00	579.00		
vii)	300 mm.	Rmt	841.00	802.00		
viii)	350 mm.	Rmt	1050.00	950.00		
ix)	400 mm.	Rmt	1171.00	1066.00		
x)	450 mm.	Rmt	1420.00	1274.00		
xi)	500 mm.	Rmt	1983.00	1807.00		
xii)	600 mm.	Rmt	2459.00	2217.00		
xiii)	700 mm.	Rmt	3350.00	3047.00		
xiv)	800 mm.	Rmt	4028.00	3671.00		
xv)	900 mm.	Rmt	4538.00	4572.00		
xvi)	1000 mm.	Rmt	5491.00	4944.00		

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	c) Class 'P-III'					
i)	80 mm.	Rmt	312.00	307.00		
ii)	100 mm.	Rmt	338.00	332.00		
iii)	150 mm.	Rmt	384.00	384.00		
iv)	200 mm.	Rmt	522.00	522.00		
v)	225 mm.	Rmt	622.00	622.00		
vi)	250 mm.	Rmt	728.00	727.00		
vii)	300 mm.	Rmt	1013.00	1012.00		
viii)	350 mm.	Rmt	1320.00	1320.00		
ix)	400 mm.	Rmt	1817.00	1817.00		
x)	450 mm.	Rmt	2112.00	2086.00		
xi)	500 mm.	Rmt	2545.00	2544.00		
xii)	600 mm.	Rmt	3268.00	3268.00		
xiii)	700 mm.	Rmt	4663.00	4662.00		
xiv)	800 mm.	Rmt	5921.00	5921.00		
	d) Class 'NP-II' (For 2.00 m. length)					
i)	80 mm.	Rmt	234.00	236.00		
ii)	100 mm.	Rmt	240.00	245.00		
iii)	150 mm.	Rmt	262.00	262.00		
iv)	200 mm.	Rmt	327.00	327.00		
v)	225 mm.	Rmt	366.00	373.00		
vi)	250 mm.	Rmt	394.00	402.00		
vii)	300 mm.	Rmt	510.00	510.00		
	(For 2.50 m. length)					
viii)	350 mm.	Rmt	644.00	657.00		
ix)	400 mm.	Rmt	743.00	743.00		
x)	450 mm.	Rmt	878.00	891.00		
xi)	500 mm.	Rmt	941.00	941.00		
xii)	600 mm.	Rmt	1188.00	1188.00		
xiii)	700 mm.	Rmt	1584.00	1584.00		
xiv)	800 mm.	Rmt	1782.00	1782.00		
xv)	900 mm.	Rmt	2277.00	2277.00		
xvi)	1000 mm.	Rmt	2772.00	2772.00		
xvii)	1100 mm.	Rmt	3780.00	3780.00		
xviii)	1200 mm.	Rmt	4512.00	4512.00		
xix)	1400 mm.	Rmt	5465.00	5574.00		
xx)	1600 mm.	Rmt	6275.00	6400.00		
xxi)	1800 mm.	Rmt	8789.00	8965.00		
	e) Class NP-III (For 2.00 m. length)					
i)	80 mm	Rmt	265.00	269.00		
ii)	100 mm	Rmt	291.00	306.00		
iii)	150 mm	Rmt	331.00	337.00		
iv)	200 mm	Rmt	455.00	372.00		
v)	225 mm	Rmt	510.00	434.00		
vi)	250 mm	Rmt	540.00	510.00		
vii)	300 mm.	Rmt	701.00	714.00		
viii)	350 mm.	Rmt	1239.00	1188.00		
ix)	400 mm.	Rmt	1388.00	1267.00		
x)	450 mm.	Rmt	1651.00	1366.00		
xi)	500 mm.	Rmt	1833.00	1683.00		
xii)	600 mm.	Rmt	2415.00	1980.00		
xiii)	700 mm.	Rmt	3218.00	2772.00		
xiv)	800 mm.	Rmt	3911.00	2970.00		
xv)	900 mm.	Rmt	4518.00	3466.00		
xvi)	1000 mm.	Rmt	5148.00	3862.00		
xvii)	1100 mm.	Rmt	6394.00	6522.00		

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xviii)	1200 mm.	Rmt	7435.00	7435.00		
xix)	1400 mm	Rmt	8742.00	8742.00		
xx)	1600 mm	Rmt	13135.00	13263.00		
xxi)	1800 mm	Rmt	16233.00	16233.00		
f)	Class 'NP-IV'					
i)	80 mm.	Rmt	285.00	290.00		
ii)	100 mm.	Rmt	334.00	340.00		
iii)	150 mm.	Rmt	378.00	386.00		
iv)	200 mm.	Rmt	528.00	421.00		
v)	225 mm.	Rmt	582.00	495.00		
vi)	250 mm.	Rmt	639.00	582.00		
vii)	300 mm.	Rmt	896.00	891.00		
viii)	350 mm.	Rmt	1361.00	1267.00		
ix)	400 mm.	Rmt	1457.00	1386.00		
x)	450 mm.	Rmt	1718.00	1485.00		
xi)	500 mm.	Rmt	2100.00	1832.00		
xii)	600 mm.	Rmt	2568.00	2376.00		
xiii)	700 mm.	Rmt	3844.00	2970.00		
xiv)	800 mm.	Rmt	4390.00	3218.00		
xv)	900 mm.	Rmt	5140.00	3763.00		
xvi)	1000 mm.	Rmt	7278.00	4159.00		
xvii)	1100 mm.	Rmt	7895.00	7981.00		
xviii)	1200 mm.	Rmt	7931.00	8089.00		
xix)	1400 mm.	Rmt	12383.00	11522.00		
xx)	1600 mm.	Rmt	15439.00	15481.00		
xxi)	1800 mm.	Rmt	21164.00	19980.00		
	Note :Only 85% rate is payable till satisfactory hydraulic testing is given.					
2.	Lowering, laying and jointing in proper grade and alignment R.C.C. pipes with collar joints in C.M.1:1 proportion or socketed R.C.C. pipes with rubber joints (excluding cost of rubber ring or R.C.C. collar,) including cost of conveyance from stores to site of work, cost of jointing material, labour, etc. complete as directed by Engineerin- charge (For all class of pipes.) as per IS- 783-1985.		Collar Joints	Rubber Ring Joints		
i)	80 mm.	Rmt	48.00	35.00		
ii)	100 mm.	Rmt	57.00	41.00		
iii)	150 mm.	Rmt	88.00	62.00		
iv)	200 mm.	Rmt	117.00	83.00		
v)	225 mm.	Rmt	136.00	96.00		
vi)	250 mm.	Rmt	153.00	107.00		
vii)	300 mm.	Rmt	185.00	130.00		
viii)	350 mm.	Rmt	189.00	133.00		
ix)	400 mm.	Rmt	241.00	171.00		
x)	450 mm.	Rmt	294.00	204.00		
xi)	500 mm.	Rmt	319.00	222.00		
xii)	600 mm.	Rmt	404.00	279.00		
xiii)	700 mm.	Rmt	457.00	317.00		
xiv)	800 mm.	Rmt	529.00	366.00		
xv)	900 mm.	Rmt	582.00	405.00		
xvi)	1000 mm.	Rmt	637.00	443.00		
xvii)	1100 mm.	Rmt	886.00	600.00		
xviii)	1200 mm.	Rmt	939.00	638.00		

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xix)	1400 mm.	Rmt	1046.00	716.00		
xx)	1600 mm.	Rmt	1154.00	793.00		
xxi)	1800 mm.	Rmt	1262.00	869.00		
3.	Hydraulic testing of RCC pipe line to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide speci-fied test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position.					
			Collar Joints	Rubber Ring Joints		
i)	80 mm.	Km	5638.00	3383.00		
ii)	100 mm.	Km	6765.00	4510.00		
iii)	150 mm.	Km	10148.00	6765.00		
iv)	200 mm.	Km	12403.00	9020.00		
v)	225 mm.	Km	14658.00	10148.00		
vi)	250 mm.	Km	16913.00	12403.00		
vii)	300 mm.	Km	20295.00	14658.00		
viii)	350 mm.	Km	21423.00	14658.00		
ix)	400 mm.	Km	27060.00	19168.00		
x)	450 mm.	Km	32698.00	22550.00		
xi)	500 mm.	Km	34953.00	24805.00		
xii)	600 mm.	Km	45100.00	31570.00		
xiii)	700 mm.	Km	50738.00	34953.00		
xiv)	800 mm.	Km	58630.00	40590.00		
xv)	900 mm.	Km	64268.00	45100.00		
xvi)	1000 mm.	Km	71033.00	49610.00		
xvii)	1100 mm.	Km	98093.00	66523.00		
xviii)	1200 mm.	Km	104858.00	71033.00		
xix)	1400 mm.	Km	116133.00	80053.00		
xx)	1600 mm.	Km	128535.00	87945.00		
xxi)	1800 mm.	Km	139810.00	96965.00		

A decorative horizontal band at the bottom of the page featuring a dense pattern of blue water droplets of various sizes.

SECTION – (I)VI

P.S.C. PIPES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	<u>VI. P. S. C. PIPES</u>					
1.	<u>Providing ISI standard Pre - stressed Cement concrete pipes</u> of following class and diameter including cost of all material and labour required, cost, inspection charges, transportaion to stores, unloading and stacking excluding GST levied by GI & GOM in all respect etc. complete as per IS-784-2001.					
	<u>i) Factory test pressure</u> a) Site test pressure + 01N/mm2, For working pressure upto 1 N/mm2					
	b) Site test pressure + 02N/mm2, For working pressure upto 1 N/mm2					
	<u>ii) Site test pressure</u> : 1.5 times working pressure pertaining to the section or 1.1 times static pressure, which ever is more (such pressure is to be control within 25% of pumphead incase of pumping main) <u>iii) Working pessure</u> : The maximum sustained internal pressure excluding surge to which each portion of pipeline my be subjected when installed.					
	<u>Note : One rubber ring should be supplied with each pipe. cost included in rates below.</u>					
<u>a) Factory Test Pressure 2 kg/Sqcm</u>						
i)	350 mm.	Rmt	3131.00			
ii)	400 mm.	Rmt	3369.00			
iii)	450 mm.	Rmt	3534.00			
iv)	500 mm.	Rmt	3890.00			
v)	600 mm.	Rmt	4677.00			
vi)	700 mm.	Rmt	5207.00			
vii)	800 mm.	Rmt	6431.00			
viii)	900 mm.	Rmt	7997.00			
ix)	1000 mm.	Rmt	9323.00			
x)	1100 mm.	Rmt	10647.00			
xi)	1200 mm.	Rmt	12302.00			
xii)	1300 mm.	Rmt	14225.00			
xiii)	1400 mm.	Rmt	15652.00			
xiv)	1500 mm.	Rmt	17914.00			
xv)	1600 mm.	Rmt	19869.00			
xvi)	1700 mm.	Rmt	21825.00			
xvii)	1800 mm.	Rmt	23781.00			
<u>b) Factory Test Pressure 4 kg/Sqcm</u>			0.00			
i)	350 mm.	Rmt	3131.00			
ii)	400 mm.	Rmt	3370.00			
iii)	450 mm.	Rmt	3534.00			
iv)	500 mm.	Rmt	3890.00			
v)	600 mm.	Rmt	4678.00			
vi)	700 mm.	Rmt	5209.00			
vii)	800 mm.	Rmt	6431.00			
viii)	900 mm.	Rmt	7998.00			
ix)	1000 mm.	Rmt	9326.00			
x)	1100 mm.	Rmt	10649.00			
xi)	1200 mm.	Rmt	12303.00			
xii)	1300 mm.	Rmt	14229.00			
xiii)	1400 mm.	Rmt	15653.00			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xiv)	1500 mm.	Rmt	17918.00			
xv)	1600 mm.	Rmt	19872.00			
xvi)	1700 mm.	Rmt	21829.00			
xvii)	1800 mm.	Rmt	23784.00			
c)	<u>Factory Test Pressure 6 kg/Sqcm</u>		0.00			
i)	350 mm.	Rmt	3137.00			
ii)	400 mm.	Rmt	3388.00			
iii)	450 mm.	Rmt	3544.00			
iv)	500 mm.	Rmt	3919.00			
v)	600 mm.	Rmt	4740.00			
vi)	700 mm.	Rmt	5390.00			
vii)	800 mm.	Rmt	6668.00			
viii)	900 mm.	Rmt	8314.00			
ix)	1000 mm.	Rmt	9697.00			
x)	1100 mm.	Rmt	11041.00			
xi)	1200 mm.	Rmt	12789.00			
xii)	1300 mm.	Rmt	14775.00			
xiii)	1400 mm.	Rmt	16256.00			
xiv)	1500 mm.	Rmt	18621.00			
xv)	1600 mm.	Rmt	20681.00			
xvi)	1700 mm.	Rmt	22741.00			
xvii)	1800 mm.	Rmt	24800.00			
d)	<u>Factory Test Pressure 8 kg/Sqcm</u>					
i)	350 mm.	Rmt	3140.00			
ii)	400 mm.	Rmt	3413.00			
iii)	450 mm.	Rmt	3566.00			
iv)	500 mm.	Rmt	3974.00			
v)	600 mm.	Rmt	4900.00			
vi)	700 mm.	Rmt	5662.00			
vii)	800 mm.	Rmt	6951.00			
viii)	900 mm.	Rmt	8667.00			
ix)	1000 mm.	Rmt	10133.00			
x)	1100 mm.	Rmt	11595.00			
xi)	1200 mm.	Rmt	13426.00			
xii)	1300 mm.	Rmt	15529.00			
xiii)	1400 mm.	Rmt	17163.00			
xiv)	1500 mm.	Rmt	19667.00			
xv)	1600 mm.	Rmt	22190.00			
xvi)	1700 mm.	Rmt	24714.00			
xvii)	1800 mm.	Rmt	27241.00			
e)	<u>Factory Test Pressure 10 kg/Sqcm</u>					
i)	350 mm.	Rmt	3157.00			
ii)	400 mm.	Rmt	3458.00			
iii)	450 mm.	Rmt	3690.00			
iv)	500 mm.	Rmt	4133.00			
v)	600 mm.	Rmt	5111.00			
vi)	700 mm.	Rmt	5889.00			
vii)	800 mm.	Rmt	7306.00			
viii)	900 mm.	Rmt	9104.00			
ix)	1000 mm.	Rmt	10663.00			
x)	1100 mm.	Rmt	12236.00			
xi)	1200 mm.	Rmt	14175.00			
xii)	1300 mm.	Rmt	16412.00			
xiii)	1400 mm.	Rmt	18551.00			
xiv)	1500 mm.	Rmt	21268.00			
xv)	1600 mm.	Rmt	23698.00			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xvi)	1700 mm.	Rmt	26131.00			
xvii)	1800 mm.	Rmt	28563.00			
f)	Factory Test Pressure 12 kg/Sqcm					
i)	350 mm.	Rmt	3158.00			
ii)	400 mm.	Rmt	3468.00			
iii)	450 mm.	Rmt	3719.00			
iv)	500 mm.	Rmt	4175.00			
v)	600 mm.	Rmt	5190.00			
vi)	700 mm.	Rmt	6012.00			
vii)	800 mm.	Rmt	7476.00			
viii)	900 mm.	Rmt	9295.00			
ix)	1000 mm.	Rmt	10892.00			
x)	1100 mm.	Rmt	12485.00			
xi)	1200 mm.	Rmt	14715.00			
xii)	1300 mm.	Rmt	16945.00			
xiii)	1400 mm.	Rmt	18856.00			
xiv)	1500 mm.	Rmt	21591.00			
xv)	1600 mm.	Rmt	24060.00			
xvi)	1700 mm.	Rmt	26526.00			
xvii)	1800 mm.	Rmt	28994.00			
g)	Factory Test Pressure 14 kg./Sqcm.					
i)	350 mm.	Rmt	3236.00			
ii)	400 mm.	Rmt	3561.00			
iii)	450 mm.	Rmt	3833.00			
iv)	500 mm.	Rmt	4310.00			
v)	600 mm.	Rmt	5391.00			
vi)	700 mm.	Rmt	6272.00			
vii)	800 mm.	Rmt	7814.00			
viii)	900 mm.	Rmt	9739.00			
ix)	1000 mm.	Rmt	11617.00			
x)	1100 mm.	Rmt	13350.00			
xi)	1200 mm.	Rmt	15476.00			
xii)	1300 mm.	Rmt	17866.00			
xiii)	1400 mm.	Rmt	20360.00			
xiv)	1500 mm.	Rmt	23330.00			
xv)	1600 mm.	Rmt	26090.00			
xvi)	1700 mm.	Rmt	28851.00			
xvii)	1800 mm.	Rmt	31610.00			
h)	Factory Test Pressure 16 kg./Sqcm.					
i)	350 mm.	Rmt	3308.00			
ii)	400 mm.	Rmt	3656.00			
iii)	450 mm.	Rmt	3952.00			
iv)	500 mm.	Rmt	4454.00			
v)	600 mm.	Rmt	5588.00			
vi)	700 mm.	Rmt	6536.00			
vii)	800 mm.	Rmt	8152.00			
viii)	900 mm.	Rmt	10821.00			
ix)	1000 mm.	Rmt	12178.00			
x)	1100 mm.	Rmt	14615.00			
xi)	1200 mm.	Rmt	16870.00			
xii)	1300 mm.	Rmt	19418.00			
xiii)	1400 mm.	Rmt	21433.00			
xiv)	1500 mm.	Rmt	25457.00			
xv)	1600 mm.	Rmt	28555.00			
xvi)	1700 mm.	Rmt	31651.00			
xvii)	1800 mm.	Rmt	34746.00			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	<u>i) Factory Test Pressure 18 kg/Sqcm</u>					
i)	350 mm.	Rmt	3383.00			
ii)	400 mm.	Rmt	3757.00			
iii)	450 mm.	Rmt	4065.00			
iv)	500 mm.	Rmt	4592.00			
v)	600 mm.	Rmt	5788.00			
vi)	700 mm.	Rmt	7148.00			
vii)	800 mm.	Rmt	8920.00			
viii)	900 mm.	Rmt	11281.00			
ix)	1000 mm.	Rmt	13257.00			
x)	1100 mm.	Rmt	15299.00			
xi)	1200 mm.	Rmt	17683.00			
xii)	1300 mm.	Rmt	20367.00			
xiii)	1400 mm.	Rmt	26876.00			
xiv)	1500 mm.	Rmt	30304.00			
xv)	1600 mm.	Rmt	34158.00			
xvi)	1700 mm.	Rmt	38008.00			
xvii)	1800 mm.	Rmt	41859.00			
	<u>J) Factory Test pressure 20 kg/Sqcm.</u>					
i)	350 mm.	Rmt	3462.00			
ii)	400 mm.	Rmt	3847.00			
iii)	450 mm.	Rmt	4183.00			
iv)	500 mm.	Rmt	4734.00			
v)	600 mm.	Rmt	5992.00			
vi)	700 mm.	Rmt	7918.00			
vii)	800 mm.	Rmt	10535.00			
viii)	900 mm.	Rmt	12452.00			
ix)	1000 mm.	Rmt	14980.00			
x)	1100 mm.	Rmt	17808.00			
xi)	1200 mm.	Rmt	22395.00			
xii)	1300 mm.	Rmt	24641.00			
xiii)	1400 mm.	Rmt	28787.00			
xiv)	1500 mm.	Rmt	32634.00			
xv)	1600 mm.	Rmt	36498.00			
xvi)	1700 mm.	Rmt	40361.00			
xvii)	1800 mm.	Rmt	44225.00			
	<u>Note :1) Only 85% rates of providing item shall be payable till satisfactory hydraulic testing is given.</u>					
	<u>2. Lowering, laying and jointing in proper grade and alignment Pre-Stressed Cement Concrete Pipes</u> with rubber ring joints including cost of conveyance from stores to site of works, all labour involved, etc. complete but excluding cost of rubber rings (for all class of pipes)					
i)	350 mm.	Rmt	116.00			
ii)	400 mm.	Rmt	163.00			
iii)	450 mm.	Rmt	197.00			
iv)	500 mm.	Rmt	222.00			
v)	600 mm.	Rmt	298.00			
vi)	700 mm.	Rmt	326.00			
vii)	800 mm.	Rmt	367.00			
viii)	900 mm.	Rmt	378.00			
ix)	1000 mm.	Rmt	488.00			
x)	1100 mm.	Rmt	641.00			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xi)	1200 mm	Rmt	686.00			
xii)	1300 mm	Rmt	815.00			
xiii)	1400 mm	Rmt	860.00			
xiv)	1500 mm	Rmt	1085.00			
xv)	1600 mm	Rmt	1221.00			
xvi)	1700 mm.	Rmt	1360.00			
xvii)	1800 mm.	Rmt	1322.00			
3.	<u>Hydraulic testing of Pre-Stressed Cement Concrete Pipes</u> with rubber ring joints to specified pressure including cost of all materials and labour and water for testing for the length upto 1 km., using reciprocating type pumps which should be able to provide specified test pressure guages and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary.					
i)	350 mm.	Km	12403.00			
ii)	400 mm.	Km	18040.00			
iii)	450 mm.	Km	21423.00			
iv)	500 mm.	Km	24805.00			
v)	600 mm.	Km	32698.00			
vi)	700 mm.	Km	36080.00			
vii)	800 mm.	Km	40590.00			
viii)	900 mm.	Km	41718.00			
ix)	1000 mm.	Km	54120.00			
x)	1100 mm	Km	71033.00			
xi)	1200 mm	Km	76670.00			
xii)	1300 mm	Km	90200.00			
xiii)	1400 mm	Km	95838.00			
xiv)	1500 mm	Km	120643.00			
xv)	1600 mm	Km	135300.00			
xvi)	1700 mm.	Km	151085.00			
xvii)	1800 mm.	Km	160105.00			

SECTION – (I)VII

**BAR WRAPPED STEEL
CYLINDER PIPES (BWSC)**

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	<u>VII. BAR WRAPPED STEEL CYLINDER PIPES (BWSC)</u>			
1.	<u>Providing and supplying European Standard EN 639/1994 and EN 641/1994 or AWWA C-303 standard and reinforced concrete pressure pipes cylinder type or IS-15155-2002</u> (Bar wrapped steel cylinder pipes suitable for overlapping steel welded joint or butt welded steel joints) of following class and diameter including cost of all material and labour required, inspection charges, transportation to stores, transit insurance, loading, unloading and stacking excluding GST levied by GOI & GOM in all respect, etc. complete. <u>i) Factory test pressure</u> a) Site test pressure + 01N/mm², For working pressure upto 1 N/mm² b) Site test pressure + 02N/mm², For working pressure upto 1 N/mm² <u>ii) Site test pressure</u> - 1.5 times working pressure pertaining to the section or 1.1 times static pressure, which ever is more (such pressure is to be control within 25% of pumphead incase of pumping main) <u>iii) Working pressure</u> - The maximum sustained internal pressure excluding surge to which each portion of pipeline may be subjected when installed.			
	<u>Note : 1) Class mentioned below represents the working pressure of pipe. 2) For external coating at site to the joints, necessary polythene wrap ping for pouring cement slurry shall also be given free with each pipe.</u>			
	<u>a) Factory Test Pressure 4 kg / Sqcm</u>			
i)	300 mm	Rmt	3154.00	
ii)	350 mm.	Rmt	3548.00	
iii)	400 mm.	Rmt	3892.00	
iv)	450 mm.	Rmt	4309.00	
v)	500 mm.	Rmt	4793.00	
vi)	600 mm.	Rmt	6232.00	
vii)	700 mm.	Rmt	7202.00	
viii)	800 mm.	Rmt	7822.00	
ix)	900 mm.	Rmt	10930.00	
x)	1000 mm.	Rmt	12596.00	
xi)	1100 mm.	Rmt	18103.00	
xii)	1200 mm.	Rmt	20189.00	
xiii)	1300 mm.	Rmt	23577.00	
xiv)	1400 mm.	Rmt	25288.00	
xv)	1500 mm.	Rmt	26988.00	
xvi)	1600 mm.	Rmt	29074.00	
xvii)	1700 mm.	Rmt	30845.00	
xviii)	1800 mm.	Rmt	32934.00	
	<u>b) Factory Test Pressure 6 kg / Sqcm</u>			
i)	300 mm	Rmt	3158.00	
ii)	350 mm.	Rmt	3551.00	
iii)	400 mm.	Rmt	3896.00	
iv)	450 mm.	Rmt	4311.00	
v)	500 mm.	Rmt	4802.00	
vi)	600 mm.	Rmt	6241.00	
vii)	700 mm.	Rmt	7209.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
viii)	800 mm.	Rmt	7828.00	
ix)	900 mm.	Rmt	10936.00	
x)	1000 mm.		12602.00	
xi)	1100 mm.		18112.00	
xii)	1200 mm.		20197.00	
xiii)	1300 mm.		23582.00	
xiv)	1400 mm.	Rmt	25296.00	
xv)	1500 mm.		26995.00	
xvi)	1600 mm.	Rmt	29083.00	
xvii)	1700 mm.	Rmt	30851.00	
xviii)	1800 mm.	Rmt	32939.00	
c)	Factory Test Pressure 8 kg / Sqcm			
i)	300 mm	Rmt	3161.00	
ii)	350 mm.	Rmt	3557.00	
iii)	400 mm.	Rmt	3899.00	
iv)	450 mm.	Rmt	4314.00	
v)	500 mm.	Rmt	4812.00	
vi)	600 mm.	Rmt	6250.00	
vii)	700 mm.	Rmt	7218.00	
viii)	800 mm.	Rmt	7838.00	
ix)	900 mm.	Rmt	10947.00	
x)	1000 mm.	Rmt	12613.00	
xi)	1100 mm.	Rmt	18122.00	
xii)	1200 mm.	Rmt	20206.00	
xiii)	1300 mm.	Rmt	23592.00	
xiv)	1400 mm.	Rmt	25304.00	
xv)	1500 mm.	Rmt	27005.00	
xvi)	1600 mm.	Rmt	29093.00	
xvii)	1700 mm.	Rmt	30861.00	
xviii)	1800 mm.	Rmt	32951.00	
d)	Factory Test Pressure 10 kg / Sqcm			
i)	300 mm.	Rmt	3162.00	
ii)	350 mm.	Rmt	3558.00	
iii)	400 mm.	Rmt	3903.00	
iv)	450 mm.	Rmt	4316.00	
v)	500 mm.	Rmt	4826.00	
vi)	600 mm.	Rmt	6266.00	
vii)	700 mm.	Rmt	7234.00	
viii)	800 mm.	Rmt	7854.00	
ix)	900 mm.	Rmt	10962.00	
x)	1000 mm.	Rmt	12627.00	
xi)	1100 mm.	Rmt	18135.00	
xii)	1200 mm.	Rmt	20222.00	
xiii)	1300 mm.	Rmt	23608.00	
xiv)	1400 mm.	Rmt	25318.00	
xv)	1500 mm.	Rmt	27020.00	
xvi)	1600 mm.	Rmt	29106.00	
xvii)	1700 mm.	Rmt	30877.00	
xviii)	1800 mm.	Rmt	32966.00	
e)	Factory Test Pressure 12 kg / Sqcm			
i)	300 mm	Rmt	3106.00	
ii)	350 mm.	Rmt	3495.00	
iii)	400 mm.	Rmt	3833.00	
iv)	450 mm.	Rmt	4241.00	
v)	500 mm.	Rmt	4757.00	
vi)	600 mm.	Rmt	6167.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
vii)	700 mm.	Rmt	7117.00	
viii)	800 mm.	Rmt	8801.00	
ix)	900 mm.	Rmt	10757.00	
x)	1000 mm.	Rmt	13373.00	
xi)	1100 mm.	Rmt	17816.00	
xii)	1200 mm.	Rmt	19863.00	
xiii)	1300 mm.	Rmt	23186.00	
xiv)	1400 mm.	Rmt	24867.00	
xv)	1500 mm.	Rmt	26818.00	
xvi)	1600 mm.	Rmt	29666.00	
xvii)	1700 mm.	Rmt	32109.00	
xviii)	1800 mm.	Rmt	35709.00	
f)	Factory Test Pressure 14 kg / Sqcm			
i)	300 mm	Rmt	3111.00	
ii)	350 mm.	Rmt	3501.00	
iii)	400 mm.	Rmt	3836.00	
iv)	450 mm.	Rmt	4253.00	
v)	500 mm.	Rmt	4841.00	
vi)	600 mm.	Rmt	6279.00	
vii)	700 mm.	Rmt	8171.00	
viii)	800 mm.	Rmt	9579.00	
ix)	900 mm.	Rmt	11816.00	
x)	1000 mm.	Rmt	14226.00	
xi)	1100 mm.	Rmt	17890.00	
xii)	1200 mm.	Rmt	19856.00	
xiii)	1300 mm.	Rmt	23759.00	
xiv)	1400 mm.	Rmt	26849.00	
xv)	1500 mm.	Rmt	29873.00	
xvi)	1600 mm.	Rmt	33311.00	
xvii)	1700 mm.	Rmt	36575.00	
xviii)	1800 mm.	Rmt	40014.00	
g)	Factory Test Pressure 16 kg / Sqcm			
i)	300 mm	Rmt	3113.00	
ii)	350 mm.	Rmt	3504.00	
iii)	400 mm.	Rmt	3841.00	
iv)	450 mm.	Rmt	4403.00	
v)	500 mm.	Rmt	5192.00	
vi)	600 mm.	Rmt	6740.00	
vii)	700 mm.	Rmt	8697.00	
viii)	800 mm.	Rmt	10422.00	
ix)	900 mm.	Rmt	12889.00	
x)	1000 mm.	Rmt	15666.00	
xi)	1100 mm.	Rmt	18870.00	
xii)	1200 mm.	Rmt	22004.00	
xiii)	1300 mm.	Rmt	26213.00	
xiv)	1400 mm.	Rmt	29590.00	
xv)	1500 mm.	Rmt	32999.00	
xvi)	1600 mm.	Rmt	36698.00	
xvii)	1700 mm.	Rmt	40733.00	
xviii)	1800 mm.	Rmt	45451.00	
h)	Factory Test Pressure 18 kg / Sqcm			
i)	300 mm.	Rmt	3267.00	
ii)	350 mm.	Rmt	3676.00	
iii)	400 mm.	Rmt	4083.00	
iv)	450 mm.	Rmt	4758.00	
v)	500 mm.	Rmt	5601.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
vi)	600 mm.	Rmt	7329.00	
vii)	700 mm.	Rmt	9635.00	
viii)	800 mm.	Rmt	11371.00	
ix)	900 mm.	Rmt	14054.00	
x)	1000 mm.	Rmt	17145.00	
xi)	1100 mm.	Rmt	20629.00	
xii)	1200 mm.	Rmt	24037.00	
xiii)	1300 mm.	Rmt	28542.00	
xiv)	1400 mm.	Rmt	32616.00	
xv)	1500 mm.	Rmt	36024.00	
xvi)	1600 mm.	Rmt	40865.00	
xvii)	1700 mm.	Rmt	45322.00	
xviii)	1800 mm.	Rmt	50163.00	
i)	Factory Test Pressure 20 kg / Sqcm			
i)	300 mm.	Rmt	3333.00	
ii)	350 mm.	Rmt	3662.00	
iii)	400 mm.	Rmt	4312.00	
iv)	450 mm.	Rmt	4925.00	
v)	500 mm.	Rmt	5972.00	
vi)	600 mm.	Rmt	7812.00	
vii)	700 mm.	Rmt	10157.00	
viii)	800 mm.	Rmt	12398.00	
ix)	900 mm.	Rmt	15310.00	
x)	1000 mm.	Rmt	18731.00	
xi)	1100 mm.	Rmt	22481.00	
xii)	1200 mm.	Rmt	26136.00	
xiii)	1300 mm.	Rmt	31046.00	
xiv)	1400 mm.	Rmt	35780.00	
xv)	1500 mm.	Rmt	40296.00	
xvi)	1600 mm.	Rmt	45008.00	
xvii)	1700 mm.	Rmt	50280.00	
xviii)	1800 mm.	Rmt	55658.00	

Notes

- 1) For lowering, laying & pouring of cement mortar in the field on joints (after laying and
- 2) For field welding rates applicable for similar welding in M. S. pipes given in that section shall be adopted.

3) Whenever manufacturer is separate and contractor for lowering laying, jointing and testing is separate, the principal contractor shall be enter into an agreement with B. W. S. C. pipe manufacturer for satisfactory manufacturing transporting, lowering, laying, jointing and testing of pipes.

This footnote shall appear into the tender condition.

ayable till satisfactory Hydraulic testing is given.

- 5) No negative tolerance shall be accepted for the M. S. Shell thickness of B. W. S. C. pipes over the thickness mentioned in E. N. 641 of AWWA AC 303.

SECTION – (I)VIII

**GLASS REINFORCED
PLASTIC PIPES (GRP)**

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	VIII. GLASS REINFORCED PLASTIC PIPES (GRP)			
1.	<u>Providing and supplying Glass fibre reinforced polyester pipes confirming to BIS -12709 / BIS 14402</u> with double bell REKA GRP coupling EPDM rubber gaskets for sealing of following pressure diameter and stiffness class including cost of all material and labour required, insurance, transportation to store, unloading and stacking excluding GST levied by GOI & GOM in all respect etc. complete.			
	<u>A. Class (SN) 2500</u>			
a)	<u>3 Kg/Sq. cm :</u>			
i)	300 mm	Rmt	1515.00	
ii)	350 mm	Rmt	1752.00	
iii)	400 mm	Rmt	1929.00	
iv)	450 mm	Rmt	2170.00	
v)	500 mm	Rmt	2455.00	
vi)	600 mm	Rmt	3155.00	
vii)	700 mm	Rmt	3922.00	
viii)	800 mm	Rmt	4815.00	
ix)	900 mm	Rmt	5883.00	
x)	1000 mm	Rmt	6978.00	
xi)	1100 mm	Rmt	8483.00	
xii)	1200 mm	Rmt	9876.00	
xiii)	1300 mm	Rmt	11183.00	
xiv)	1400 mm	Rmt	12913.00	
xv)	1500 mm	Rmt	14676.00	
xvi)	1600 mm	Rmt	17092.00	
xvii)	1700 mm	Rmt	20427.00	
xviii)	1800 mm	Rmt	22290.00	
xix)	1900 mm	Rmt	24917.00	
xx)	2000 mm	Rmt	26939.00	
xxi)	2100 mm	Rmt	30104.00	
xxii)	2200 mm	Rmt	32314.00	
xxiii)	2300 mm	Rmt	34922.00	
xiv)	2400 mm	Rmt	37330.00	
b)	<u>6 Kg/Sq. cm :</u>			
i)	300 mm	Rmt	1573.00	
ii)	350 mm	Rmt	1797.00	
iii)	400 mm	Rmt	2020.00	
iv)	450 mm	Rmt	2242.00	
v)	500 mm	Rmt	2549.00	
vi)	600 mm	Rmt	3302.00	
vii)	700 mm	Rmt	4105.00	
viii)	800 mm	Rmt	5030.00	
ix)	900 mm	Rmt	6128.00	
x)	1000 mm	Rmt	7289.00	
xi)	1100 mm	Rmt	8833.00	
xii)	1200 mm	Rmt	10221.00	
xiii)	1300 mm	Rmt	11695.00	
xiv)	1400 mm	Rmt	13383.00	
xv)	1500 mm	Rmt	15266.00	
xvi)	1600 mm	Rmt	17805.00	
xvii)	1700 mm	Rmt	21287.00	
xviii)	1800 mm	Rmt	23163.00	
xix)	1900 mm	Rmt	25919.00	
xx)	2000 mm	Rmt	27991.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
xxi)	2100 mm	Rmt	31293.00	
xxii)	2200 mm	Rmt	33723.00	
xxiii)	2300 mm	Rmt	36345.00	
xiv)	2400 mm	Rmt	38811.00	
c)	9 Kg/Sq. cm :			
i)	300 mm	Rmt	1623.00	
ii)	350 mm	Rmt	1885.00	
iii)	400 mm	Rmt	2102.00	
iv)	450 mm	Rmt	2383.00	
v)	500 mm	Rmt	2702.00	
vi)	600 mm	Rmt	3504.00	
vii)	700 mm	Rmt	4364.00	
viii)	800 mm	Rmt	5435.00	
ix)	900 mm	Rmt	6640.00	
x)	1000 mm	Rmt	7862.00	
xi)	1100 mm	Rmt	9501.00	
xii)	1200 mm	Rmt	11032.00	
xiii)	1300 mm	Rmt	12739.00	
xiv)	1400 mm	Rmt	14638.00	
xv)	1500 mm	Rmt	16624.00	
xvi)	1600 mm	Rmt	19408.00	
xvii)	1700 mm	Rmt	23254.00	
xviii)	1800 mm	Rmt	25431.00	
xix)	1900 mm	Rmt	28251.00	
xx)	2000 mm	Rmt	30655.00	
xxi)	2100 mm	Rmt	34114.00	
xxii)	2200 mm	Rmt	36675.00	
xxiii)	2300 mm	Rmt	39600.00	
xiv)	2400 mm	Rmt	42706.00	
d)	12 Kg/Sq. cm :			
i)	300 mm	Rmt	1719.00	
ii)	350 mm	Rmt	1984.00	
iii)	400 mm	Rmt	2210.00	
iv)	450 mm	Rmt	2886.00	
v)	500 mm	Rmt	2501.00	
vi)	600 mm	Rmt	3763.00	
vii)	700 mm	Rmt	4668.00	
viii)	800 mm	Rmt	5784.00	
ix)	900 mm	Rmt	7092.00	
x)	1000 mm	Rmt	8454.00	
xi)	1100 mm	Rmt	10362.00	
xii)	1200 mm	Rmt	12086.00	
xiii)	1300 mm	Rmt	13677.00	
xiv)	1400 mm	Rmt	15742.00	
xv)	1500 mm	Rmt	17999.00	
xvi)	1600 mm	Rmt	20877.00	
xvii)	1700 mm	Rmt	25062.00	
xviii)	1800 mm	Rmt	27477.00	
xix)	1900 mm	Rmt	30415.00	
xx)	2000 mm	Rmt	33075.00	
xxi)	2100 mm	Rmt	36873.00	
xxii)	2200 mm	Rmt	39790.00	
e)	15 Kg/Sq. cm :			
i)	300 mm	Rmt	1790.00	
ii)	350 mm	Rmt	2067.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
iii)	400 mm	Rmt	2300.00	
iv)	450 mm	Rmt	2650.00	
v)	500 mm	Rmt	3046.00	
vi)	600 mm	Rmt	4025.00	
vii)	700 mm	Rmt	5019.00	
viii)	800 mm	Rmt	6263.00	
ix)	900 mm	Rmt	7721.00	
x)	1000 mm	Rmt	9163.00	
xi)	1100 mm	Rmt	11242.00	
xii)	1200 mm	Rmt	13044.00	
xiii)	1300 mm	Rmt	14972.00	
xiv)	1400 mm	Rmt	17233.00	
xv)	1500 mm	Rmt	19550.00	
xvi)	1600 mm	Rmt	22684.00	
xvii)	1700 mm	Rmt	27612.00	
xvii)	1800 mm	Rmt	30176.00	
xix)	1900 mm	Rmt	33695.00	
xx)	2000 mm	Rmt	36671.00	
B.	Class (SN) 5000			
a)	3 Kg/Sq. cm :			
i)	300 mm	Rmt	1624.00	
ii)	350 mm	Rmt	1905.00	
iii)	400 mm	Rmt	2170.00	
iv)	450 mm	Rmt	2470.00	
v)	500 mm	Rmt	2732.00	
vi)	600 mm	Rmt	3561.00	
vii)	700 mm	Rmt	4457.00	
viii)	800 mm	Rmt	5523.00	
ix)	900 mm	Rmt	6802.00	
x)	1000 mm	Rmt	8089.00	
xi)	1100 mm	Rmt	9807.00	
xii)	1200 mm	Rmt	11494.00	
xiii)	1300 mm	Rmt	13088.00	
xiv)	1400 mm	Rmt	15041.00	
xv)	1500 mm	Rmt	17166.00	
xvi)	1600 mm	Rmt	19954.00	
xvii)	1700 mm	Rmt	23911.00	
xviii)	1800 mm	Rmt	26225.00	
xix)	1900 mm	Rmt	29189.00	
xx)	2000 mm	Rmt	31747.00	
xxi)	2100 mm	Rmt	35346.00	
xxii)	2200 mm	Rmt	38152.00	
b)	6 Kg/Sq. cm :			
i)	300 mm	Rmt	1649.00	
ii)	350 mm	Rmt	1938.00	
iii)	400 mm	Rmt	2141.00	
iv)	450 mm	Rmt	2441.00	
v)	500 mm	Rmt	2812.00	
vi)	600 mm	Rmt	3638.00	
vii)	700 mm	Rmt	4571.00	
viii)	800 mm	Rmt	5656.00	
ix)	900 mm	Rmt	6967.00	
x)	1000 mm	Rmt	8271.00	
xi)	1100 mm	Rmt	10117.00	
xii)	1200 mm	Rmt	11759.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
xiii)	1300 mm	Rmt	13438.00	
xiv)	1400 mm	Rmt	15419.00	
xv)	1500 mm	Rmt	17566.00	
xvi)	1600 mm	Rmt	20446.00	
xvii)	1700 mm	Rmt	24495.00	
xviii)	1800 mm	Rmt	26858.00	
xix)	1900 mm	Rmt	29918.00	
xx)	2000 mm	Rmt	32596.00	
xxi)	2100 mm	Rmt	36260.00	
xxii)	2200 mm	Rmt	39200.00	
c)	9 Kg/Sq. cm :			
i)	300 mm	Rmt	1709.00	
ii)	350 mm	Rmt	2003.00	
iii)	400 mm	Rmt	2254.00	
iv)	450 mm	Rmt	2566.00	
v)	500 mm	Rmt	2936.00	
vi)	600 mm	Rmt	4034.00	
vii)	700 mm	Rmt	4791.00	
viii)	800 mm	Rmt	6170.00	
ix)	900 mm	Rmt	7283.00	
x)	1000 mm	Rmt	8689.00	
xi)	1100 mm	Rmt	14027.00	
xii)	1200 mm	Rmt	15959.00	
xiii)	1300 mm	Rmt	17981.00	
xiv)	1400 mm	Rmt	20128.00	
xv)	1500 mm	Rmt	23057.00	
xvi)	1600 mm	Rmt	26194.00	
xvii)	1700 mm	Rmt	31536.00	
xviii)	1800 mm	Rmt	34364.00	
d)	12 Kg/Sq. cm :			
i)	300 mm	Rmt	1758.00	
ii)	350 mm	Rmt	2085.00	
iii)	400 mm	Rmt	2305.00	
iv)	450 mm	Rmt	2669.00	
v)	500 mm	Rmt	3048.00	
vi)	600 mm	Rmt	4025.00	
vii)	700 mm	Rmt	5073.00	
viii)	800 mm	Rmt	6261.00	
ix)	900 mm	Rmt	7819.00	
x)	1000 mm	Rmt	9196.00	
xi)	1100 mm	Rmt	11303.00	
xii)	1200 mm	Rmt	13135.00	
xiii)	1300 mm	Rmt	15054.00	
xiv)	1400 mm	Rmt	17347.00	
xv)	1500 mm	Rmt	19703.00	
xvi)	1600 mm	Rmt	22773.00	
xvii)	1700 mm	Rmt	27413.00	
xviii)	1800 mm	Rmt	30136.00	
xix)	1900 mm	Rmt	33396.00	
e)	15 Kg/Sq. cm :			
i)	300 mm	Rmt	1821.00	
ii)	350 mm	Rmt	2167.00	
iii)	400 mm	Rmt	2423.00	
iv)	450 mm	Rmt	2798.00	
v)	500 mm	Rmt	3193.00	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
vi)	600 mm	Rmt	4238.00	
vii)	700 mm	Rmt	5335.00	
viii)	800 mm	Rmt	6675.00	
ix)	900 mm	Rmt	8232.00	
x)	1000 mm	Rmt	9814.00	
xi)	1100 mm	Rmt	11937.00	
xii)	1200 mm	Rmt	13987.00	
xiii)	1300 mm	Rmt	15983.00	
xiv)	1400 mm	Rmt	18442.00	
xv)	1500 mm	Rmt	20975.00	
xvi)	1600 mm	Rmt	24285.00	
xvii)	1700 mm	Rmt	29161.00	
xviii)	1800 mm	Rmt	32117.00	
Note : 1) For lowering, laying & jointing rates of GRP pipes 50 % rates for lowering, laying & jointing of PSC 2) Where manufacturer is separate & contractor for lowering, laying jointing & testing is separate the <u>This foot Note shall appear in tender conditions.</u> 3) Only 85 % Payment shall be payable till satisfactory hydraulic testing is given.				

SECTION – (I)IX
H.D.P.E. PIPES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	<u>IX. H. D. P. E. PIPES</u>					
<u>1.</u>	<u>Providing and supplying in standard lengths Polyethelene Pipes</u> , confirming to IS 4984 / 14151 / 12786 / 13488 with nesessary jointing material like mechanical connector i. e. thread / insert joint / quick release coupler joint / compression fitting joint or flanged joint excluding coupler/specials, including transportation and freight charges, inspection charges, loading / unloading charges, conveyance to the departmental stores & stacking the same in closed shade duly protecting from sunrays & rains, excluding GST levied by GI & GOM in all respect etc. complete.					
	<u>Note:- H.D.P.E. Pipes shall be as per latest IS Specifications Also HDPE pipes upto 110 mm Dia shall be in coil form</u>					
	<u>A.) PE-100 a) 6 Kg/Sq. cm :</u>					
i)	63 mm	Rmt	87			
ii)	75 mm	Rmt	122			
iii)	90 mm	Rmt	173			
iv)	110 mm	Rmt	251			
v)	125 mm	Rmt	344			
vi)	140 mm	Rmt	432			
vii)	160 mm	Rmt	559			
viii)	180 mm	Rmt	704			
ix)	200 mm	Rmt	825			
x)	225 mm	Rmt	1063			
xi)	250 mm	Rmt	1307			
xii)	280 mm	Rmt	1637			
xiii)	315 mm	Rmt	2074			
xiv)	355 mm	Rmt	2628			
xv)	400 mm	Rmt	3443			
xvi)	450 mm	Rmt	4536			
xvii)	500 mm	Rmt	5609			
xviii)	560 mm	Rmt	7021			
xix)	630 mm	Rmt	8836			
xx)	710 mm	Rmt	11409			
xxi)	800 mm	Rmt	13754			
xxii)	900 mm	Rmt	17425			
xxiii)	1000 mm	Rmt	21487			
	<u>b) 8 Kg/Sq. cm :</u>					
i)	63 mm	Rmt	110			
ii)	75 mm	Rmt	147			
iii)	90 mm	Rmt	210			
iv)	110 mm	Rmt	307			
v)	125 mm	Rmt	398			
vi)	140 mm	Rmt	545			
vii)	160 mm	Rmt	706			
viii)	180 mm	Rmt	891			
ix)	200 mm	Rmt	1048			
x)	225 mm	Rmt	1346			
xi)	250 mm	Rmt	1659			
xii)	280 mm	Rmt	2080			
xiii)	315 mm	Rmt	2635			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xiv)	355 mm	Rmt	3334			
xv)	400 mm	Rmt	4377			
xvi)	450 mm	Rmt	5852			
xvii)	500 mm	Rmt	7218			
xviii)	560 mm	Rmt	9062			
xix)	630 mm	Rmt	11402			
xx)	710 mm	Rmt	14722			
xxi)	800 mm	Rmt	17760			
xxii)	900 mm	Rmt	21942			
xxiii)	1000 mm	Rmt	22481			
c)	10 Kg/Sq. cm :					
i)	63 mm	Rmt	135			
ii)	75 mm	Rmt	191			
iii)	90 mm	Rmt	275			
iv)	110 mm	Rmt	405			
v)	125 mm	Rmt	520			
vi)	140 mm	Rmt	650			
vii)	160 mm	Rmt	845			
viii)	180 mm	Rmt	1070			
ix)	200 mm	Rmt	1255			
x)	225 mm	Rmt	1607			
xi)	250 mm	Rmt	2005			
xii)	280 mm	Rmt	2477			
xiii)	315 mm	Rmt	3180			
xiv)	355 mm	Rmt	3991			
xv)	400 mm	Rmt	5316			
xvi)	450 mm	Rmt	7073			
xvii)	500 mm	Rmt	8743			
xviii)	560 mm	Rmt	10515			
xix)	630 mm	Rmt	13802			
xx)	710 mm	Rmt	17532			
xxi)	800 mm	Rmt	21131			
xxii)	900 mm	Rmt	21383			
xxiii)	1000 mm	Rmt	24024			
d)	12.5 Kg/Sq. cm :					
i)	63 mm	Rmt	161			
ii)	75 mm	Rmt	226			
iii)	90 mm	Rmt	325			
iv)	110 mm	Rmt	479			
v)	125 mm	Rmt	618			
vi)	140 mm	Rmt	776			
vii)	160 mm	Rmt	1009			
viii)	180 mm	Rmt	1275			
ix)	200 mm	Rmt	1499			
x)	225 mm	Rmt	1934			
xi)	250 mm	Rmt	2378			
xii)	280 mm	Rmt	2983			
xiii)	315 mm	Rmt	3776			
xiv)	355 mm	Rmt	4795			
xv)	400 mm	Rmt	6302			
xvi)	450 mm	Rmt	8422			
xvii)	500 mm	Rmt	10380			
xviii)	560 mm	Rmt	12634			
xix)	630 mm	Rmt	16595			
xx)	710 mm	Rmt	17114			
xxi)	800 mm	Rmt	18747			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xxii)	900 mm	Rmt	23751			
xxiii)	1000 mm	Rmt	28927			
e)	16 Kg/Sq. cm.:					
i)	63 mm	Rmt	183			
ii)	75 mm	Rmt	260			
iii)	90 mm	Rmt	372			
iv)	110 mm	Rmt	549			
v)	125 mm	Rmt	711			
vi)	140 mm	Rmt	886			
vii)	160 mm	Rmt	1163			
viii)	180 mm	Rmt	1463			
ix)	200 mm	Rmt	2297			
x)	225 mm	Rmt	2903			
xi)	250 mm	Rmt	3581			
xii)	280 mm	Rmt	4491			
xiii)	315 mm	Rmt	5677			
xiv)	355 mm	Rmt	7200			
xv)	400 mm	Rmt	9329			
xvi)	450 mm	Rmt	11824			
xvii)	500 mm	Rmt	14581			
xviii)	560 mm	Rmt	16041			
xix)	630 mm	Rmt	16842			
xx)	710 mm	Rmt	17980			
xxi)	800 mm	Rmt	21663			
xxii)	900 mm	Rmt	27418			
xxiii)	1000 mm	Rmt	33664			
2.	Lowering, Laying and Jointing H. D. P. E./M. D. P. E. pipes in proper position including all specials by compression fitting/electrofusion and butt fusion jointing procedure as per relevant IS Code complete with all materials for jointing procedure like Electrofusion machine, Electric heater/butt fusion welding machine with hydraulic jack, top loading clamp etc. and all labours as directed by engineer in charge as per IS-7634 Part II					
	For all classes.					
i)	20 mm	Rmt.	11			
ii)	25 mm	Rmt.	17			
iii)	32 mm	Rmt.	21			
iv)	40 mm	Rmt.	28			
v)	50 mm	Rmt.	34			
vi)	63 mm	Rmt.	41			
vii)	75 mm	Rmt.	44			
viii)	90 mm	Rmt.	61			
ix)	110 mm	Rmt.	64			
x)	125 mm	Rmt.	73			
xi)	140 mm	Rmt.	97			
xii)	160 mm	Rmt.	105			
xiii)	180 mm	Rmt.	105			
xiv)	200 mm	Rmt.	117			
xv)	225 mm	Rmt.	150			
xvi)	250 mm	Rmt.	154			
xvii)	280 mm	Rmt.	191			
xviii)	315 mm	Rmt.	210			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xix)	355 mm	Rmt.	229			
xx)	400 mm	Rmt.	232			
xxi)	450 mm	Rmt.	262			
xxii)	500 mm	Rmt.	337			
xxiii)	560 mm	Rmt.	378			
xxiv)	630 mm	Rmt.	425			
3.	<u>Hydraulic testing of H. D. P. E./ M. D. P. E. pipe line</u> to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position..					
i)	20 mm dia	Km.	1128			
ii)	25 mm dia	Km.	2255			
iii)	32 mm dia	Km.	2255			
iv)	40 mm dia	Km.	3383			
v)	50 mm dia	Km.	3383			
vi)	63 mm dia	Km.	4510			
vii)	75 mm dia	Km.	4510			
viii)	90 mm dia	Km.	6765			
ix)	110 mm dia	Km.	6765			
x)	125 mm dia	Km.	7893			
xi)	140 mm dia	Km.	11275			
xii)	160 mm dia	Km.	11275			
xiii)	180 mm dia	Km.	11275			
xiv)	200 mm dia	Km.	12403			
xv)	225 mm dia	Km.	16913			
xvi)	250 mm dia	Km.	16913			
xvii)	280 mm dia	Km.	21423			
xviii)	315 mm dia	Km.	23678			
xix)	355 mm dia	Km.	25933			
xx)	400 mm dia	Km.	25933			
xxi)	450 mm dia	Km.	29315			
xxii)	500 mm dia	Km.	37208			
xxiii)	560 mm dia	Km.	41718			
xxiv)	630 mm dia	Km.	47355			
4.	<u>Providing supplying in standard length (PE material)</u> HDPE Double wall corrugated pipe for non pressure underground drainage and sewerage with smooth internal & corrugated external surface confirming to IS 16098:Part-2 2013 with spigot or plain end with necessary jointing material coupler including transportation and freight charges, inspection charges, loading and unloading charges, conveyance to departmental store and stacking the same in closed shade duly protecting from direct sun ray and rains excluding GST levied by Gol and GoM in all respect, etc. complete.					

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	Rate for SN 4 and SN 8					
	i) ID 135 mm dia	Rmt.	249	298		
	ii) ID 150 mm dia	Rmt.	318	381		
	iii) ID 170 mm dia	Rmt.	370	443		
	iv) ID 200 mm dia	Rmt.	506	608		
	v) ID 250 mm dia	Rmt.	835	1002		
	vi) ID 300 mm dia	Rmt.	1289	1548		
	vii) ID 400 mm dia	Rmt.	1740	2088		
	viii) ID 500 mm dia	Rmt.	2874	3449		
	ix) ID 600 mm dia	Rmt.	4374	5249		
	x) ID 800 mm dia	Rmt.	7093	8510		
5.	Lowering, Laying and Jointing (PE material) HDPE double wall corrugated pipe for non pressure underground by heating to the ends of pipes with the help of tefflon coated electric heater to the required temperature and then pressing the ends together against each other, to form a monolithic & leak proof joint by thermosetting process. The pressing may be required to be done with Jacks/ Hydraulic Jacks/Butt fusion machine etc. complete with all materials labours as directed by Engineer - in - charge. including					
	Rate for SN 4 and SN 8					
	i) ID 135 mm dia	Rmt.	34			
	ii) ID 150 mm dia	Rmt.	36			
	iii) ID 170 mm dia	Rmt.	40			
	iv) ID 200 mm dia	Rmt.	43			
	v) ID 250 mm dia	Rmt.	53			
	vi) ID 300 mm dia	Rmt.	65			
	vii) ID 400 mm dia	Rmt.	79			
	viii) ID 500 mm dia	Rmt.	94			
	ix) ID 600 mm dia	Rmt.	108			
	x) ID 800 mm dia	Rmt.	125			
6.	Hydraulic testing of HDPE double wall corrugated pipe for non pressure underground line to specified pressure including cost of all materials and labour and water for testing for specified length including cutting, placing end cap making arrangement for filling safe water using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary and reinstating to original position					
	Rate for SN 4 and SN 8					
	i) ID 135 mm dia	Km.	3383			
	ii) ID 150 mm dia	Km.	3383			
	iii) ID 170 mm dia	Km.	4510			
	iv) ID 200 mm dia	Km.	4510			
	v) ID 250 mm dia	Km.	5638			
	vi) ID 300 mm dia	Km.	6765			
	vii) ID 400 mm dia	Km.	7893			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	viii) ID 500 mm dia	Km.	9020			
	ix) ID 600 mm dia	Km.	11275			
	x) ID 800 mm dia	Km.	12403			
	<u>Only 85% rates of providing item shall be payable till satisfactory hydraulic testing is given.</u>					

SECTION – (I)X
M.D.P.E. PIPES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	<u>X. M. D. P. E. PIPES</u>					
<u>1.</u>	<u>Providing and Supplying Blue MDPE pipes</u> conforming to ISO 4427:1996 manufactured from virgin resin PE 80 Food grade compounded Raw Material having Blue Colour only with quality assurance certificate from quality agencies like WRC / CIPET (India) / DVGM / KIWA / SPGN etc. for usage in Drinking Water system. The cost shall include testing of all materials, Inspection charges, transportation up to store, transit insurance, loading, as specified and directed, unloading, stacking excluding GST levied by GOI & GOM in all respect, etc. complete as specified and directed.					
<u>a)</u>	<u>PN 16 (SDR 9)</u>					
i)	20 mm	Rmt	23			
ii)	25 mm	Rmt	31			
iii)	32 mm	Rmt	51			
iv)	40 mm	Rmt	75			
v)	50 mm	Rmt	113			
vi)	63 mm	Rmt	167			
vii)	75 mm	Rmt	225			
viii)	90 mm	Rmt	326			
ix)	110 mm	Rmt	483			
x)	125 mm	Rmt	624			
xi)	140 mm	Rmt	784			
xii)	160 mm	Rmt	1039			
xiii)	180 mm	Rmt	1316			
xiv)	200 mm	Rmt	1627			
xv)	225 mm	Rmt	2060			
xvi)	250 mm	Rmt	2534			
xvii)	280 mm	Rmt	3184			
xviii)	315 mm	Rmt	4095			
<u>b)</u>	<u>PN 12.5 (SDR 11)</u>					
i)	25 mm	Rmt	29			
ii)	32 mm	Rmt	48			
iii)	40 mm	Rmt	71			
iv)	50 mm	Rmt	100			
v)	63 mm	Rmt	135			
vi)	75 mm	Rmt	188			
vii)	90 mm	Rmt	273			
viii)	110 mm	Rmt	401			
ix)	125 mm	Rmt	523			
x)	140 mm	Rmt	652			
xi)	160 mm	Rmt	854			
xii)	180 mm	Rmt	1108			
xiii)	200 mm	Rmt	1357			
xiv)	225 mm	Rmt	1718			
xv)	250 mm	Rmt	2128			
xvi)	280 mm	Rmt	2652			
xvii)	315 mm	Rmt	3362			
<u>c)</u>	<u>PN 10 (SDR 13.6)</u>					
i)	63 mm	Rmt	115			
ii)	75 mm	Rmt	162			
iii)	90 mm	Rmt	233			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
iv)	110 mm	Rmt	344	
v)	125 mm	Rmt	443	
vi)	140 mm	Rmt	556	
vii)	160 mm	Rmt	726	
viii)	180 mm	Rmt	919	
ix)	200 mm	Rmt	1133	
x)	225 mm	Rmt	1436	
xi)	250 mm	Rmt	1767	
xii)	280 mm	Rmt	2215	
xiii)	315 mm	Rmt	2798	
d)	PN 8 (SDR 17)			
i)	63 mm.	Rmt	92	
ii)	75 mm	Rmt	131	
iii)	90 mm	Rmt	189	
iv)	110 mm	Rmt	280	
v)	125 mm	Rmt	358	
vi)	140 mm	Rmt	450	
vii)	160 mm	Rmt	588	
viii)	180 mm	Rmt	747	
ix)	200 mm	Rmt	919	
x)	225 mm	Rmt	1167	
xi)	250 mm	Rmt	1463	
xii)	280 mm	Rmt	1832	
xiii)	315 mm	Rmt	2321	
e)	PN 6 (SDR 21)			
i)	63 mm.	Rmt	71	
ii)	75 mm.	Rmt	104	
iii)	90 mm	Rmt	146	
iv)	110 mm	Rmt	221	
v)	125 mm	Rmt	279	
vi)	140 mm	Rmt	353	
vii)	160 mm	Rmt	461	
viii)	180 mm	Rmt	576	
ix)	200 mm	Rmt	717	
x)	225 mm	Rmt	907	
xi)	250 mm	Rmt	1110	
xii)	280 mm	Rmt	1403	
xiii)	315 mm	Rmt	1764	
2.	<u>Providing & Supply of Electro Fusion Fittings in accordance with BS EN12201: Part-3</u> suitable for drinking water with in black/ blue colour manufactured from compounded PE80/ PE100 virgin polymer and compatible with PE80/PE100 pipes, in pressure rating SDR11 with min PN12.5 rated for water application and shall be inclusive of all cost such as testing, inspection charges, transportation up to store, transit insurance, loading, unloading, stacking excluding GST levied by GOI & GOM in all respect, etc. complete.			
	Couplers 20	No.	87	
	Couplers 25	No.	87	
	Couplers 32	No.	87	
	Couplers 40	No.	151	
	Couplers 50	No.	188	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	Couplers 63	No.	224	
	Couplers 75	No.	379	
	Couplers 90	No.	415	
	Couplers 110	No.	577	
	Couplers 125	No.	588	
	Couplers 140	No.	1257	
	Couplers 160	No.	1366	
	Couplers 180	No.	1960	
	Couplers 200	No.	2202	
	Couplers 225	No.	2775	
	Couplers 250	No.	4325	
	Couplers 280	No.	4871	
	Couplers 315	No.	5321	
	Couplers 355	No.	5818	
	Couplers 400	No.	7582	
	Couplers 450	No.	13734	
	Couplers 500	No.	14448	
	Equal Tee			
	Equal Tee 20	No.	183	
	Equal Tee 25	No.	183	
	Equal Tee 32	No.	183	
	Equal Tee 40	No.	404	
	Equal Tee 50	No.	412	
	Equal Tee 63	No.	674	
	Equal Tee 75	No.	988	
	Equal Tee 90	No.	1409	
	Equal Tee 110	No.	1957	
	Equal Tee 125	No.	2700	
	Equal Tee 160	No.	4680	
	Equal Tee 180	No.	5878	
	Equal Tee 200	No.	9422	
	Equal Tee 225	No.	10626	
	Equal Tee 250	No.	15567	
	Equal Tee 315	No.	16906	
	Equal Tee 400	No.	23560	
	Elbow 90 Deg.			
	Elbow 90 Deg. 20	No.	97	
	Elbow 90 Deg. 25	No.	97	
	Elbow 90 Deg. 32	No.	98	
	Elbow 90 Deg. 40	No.	133	
	Elbow 90 Deg. 50	No.	158	
	Elbow 90 Deg. 63	No.	219	
	Elbow 90 Deg. 75	No.	343	
	Elbow 90 Deg. 90	No.	405	
	Elbow 90 Deg. 110	No.	557	
	Elbow 90 Deg. 125	No.	710	
	Elbow 90 Deg. 160	No.	1554	
	Elbow 90 Deg. 180	No.	1801	
	Elbow 90 Deg. 200	No.	2331	
	Elbow 90 Deg. 225	No.	5080	
	Elbow 90 Deg. 250	No.	9519	
	Elbow 90 Deg. 315	No.	9686	
	Elbow 90 Deg. 400	No.	13121	
	Elbow 45 Deg.			
	Elbow 45 Deg. 32	No.	104	
	Elbow 45 Deg. 40	No.	126	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	Elbow 45 Deg. 50	No.	150	
	Elbow 45 Deg. 63	No.	209	
	Elbow 45 Deg. 75	No.	326	
	Elbow 45 Deg. 90	No.	385	
	Elbow 45 Deg. 110	No.	557	
	Elbow 45 Deg. 125	No.	710	
	Elbow 45 Deg. 160	No.	1308	
	Elbow 45 Deg. 180	No.	1714	
	Elbow 45 Deg. 200	No.	1801	
	Elbow 45 Deg. 225	No.	2331	
	Elbow 45 Deg. 250	No.	5080	
	Elbow 45 Deg. 315	No.	9658	
	Elbow 45 Deg. 400	No.	13099	
	Reducer			
	Reducer 25X20	No.	131	
	Reducer 32X20	No.	137	
	Reducer 32X25	No.	144	
	Reducer 40X32	No.	156	
	Reducer 50X32	No.	156	
	Reducer 50X40	No.	156	
	Reducer 63X32	No.	188	
	Reducer 63X40	No.	188	
	Reducer 63X50	No.	188	
	Reducer 75 x 63	No.	425	
	Reducer 90X63	No.	467	
	Reducer 90X75	No.	474	
	Reducer 110X50	No.	576	
	Reducer 110X63	No.	576	
	Reducer 110X75	No.	606	
	Reducer 110X90	No.	606	
	Reducer 125X90	No.	673	
	Reducer 160X90	No.	1129	
	Reducer 160X110	No.	1191	
	Reducer 180X125	No.	1483	
	Reducer 200X63	No.	1712	
	Reducer 200X90	No.	1828	
	Reducer 200X110	No.	2123	
	Reducer 200X160	No.	1758	
	Reducer 225X160	No.	2571	
	Reducer 250X110	No.	3297	
	Reducer 250X160	No.	3551	
	Reducer 250X200	No.	3883	
	Reducer 315 x 200	No.	7379	
	Reducer 315 x 250	No.	7481	
	Reducer 400 x 200	No.	7947	
	Reducer 400 x 315	No.	8535	
	End Cap			
	End Cap 20	No.	34	
	End Cap 25	No.	34	
	End Cap 32	No.	48	
	End Cap 40	No.	52	
	End Cap 50	No.	55	
	End Cap 63	No.	73	
	End Cap 75	No.	268	
	End Cap 90	No.	305	
	End Cap 110	No.	428	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	End Cap 125	No.	543	
	End Cap 140	No.	888	
	End Cap 160	No.	962	
	End Cap 180	No.	1055	
	End Cap 200	No.	1788	
	End Cap 225	No.	3071	
	End Cap 250	No.	3958	
	End Cap 315	No.	6548	
	Ferrule Tapping Tee			
	Ferrule tapping tee 63 x 1/2"	No.	658	
	Ferrule tapping tee 63 x 3/4"	No.	658	
	Ferrule tapping tee 63 x 1"	No.	658	
	Ferrule tapping tee 75 x 1/2"	No.	658	
	Ferrule tapping tee 75 x 3/4"	No.	658	
	Ferrule tapping tee 75 x 1"	No.	658	
	Ferrule tapping tee 90 x 1/2"	No.	658	
	Ferrule tapping tee 90 x 3/4"	No.	649	
	Ferrule tapping tee 90 x 1"	No.	649	
	Ferrule tapping tee 90 x 1 1/2"	No.	855	
	Ferrule tapping tee 90 x 1 1/4"	No.	855	
	Ferrule tapping tee 90 x 2"	No.	855	
	Ferrule tapping tee 110 x 1/2"	No.	658	
	Ferrule tapping tee 110 x 3/4"	No.	658	
	Ferrule tapping tee 110 x 1"	No.	658	
	Ferrule tapping tee 110 x 1 1/2"	No.	855	
	Ferrule tapping tee 100 x 1 1/4"	No.	855	
	Ferrule tapping tee 110 x 2"	No.	855	
	Ferrule tapping tee 160 x 1/2"	No.	658	
	Ferrule tapping tee 160 x 3/4"	No.	658	
	Ferrule tapping tee 160 x 1"	No.	658	
	Ferrule tapping tee 160 x 1 1/2"	No.	931	
	Ferrule tapping tee 160 x 1 1/4"	No.	931	
	Ferrule tapping tee 160 x 2"	No.	931	
	Ferrule tapping tee 200 x 1/2"	No.	929	
	Ferrule tapping tee 200 x 3/4"	No.	929	
	Ferrule tapping tee 200 x 1"	No.	929	
	Ferrule tapping tee 200 x 1 1/2"	No.	1340	
	Ferrule tapping tee 200 x 1 1/4"	No.	1340	
	Ferrule tapping tee 250 x 1/2"	No.	929	
	Ferrule tapping tee 250 x 3/4"	No.	929	
	Ferrule tapping tee 250 x 1"	No.	929	
	Ferrule tapping tee 250 x 1 1/2"	No.	1340	
	Ferrule tapping tee 250 x 1 1/4"	No.	1340	
	Ferrule tapping tee 250 x 2"	No.	1340	
	Ferrule tapping tee 315 x 1/2"	No.	1106	
	Ferrule tapping tee 315 x 3/4"	No.	1106	
	Ferrule tapping tee 315 x 1"	No.	1106	
	Ferrule tapping tee 315 x 1 1/2"	No.	1502	
	Ferrule tapping tee 315 x 1 1/4"	No.	1502	
	Ferrule tapping tee 315 x 2"	No.	1502	
	Electrofusion Reducing Tee			
	Reducing Tee 32 x 32 x 20	No.	153	
	Reducing Tee 32 x 32 x 25	No.	153	
	Reducing Tee 40 x 40 x 20	No.	344	
	Reducing Tee 40 x 40 x 25	No.	348	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	Reducing Tee 40 x 40 x 32	No.	373	
	Reducing Tee 50 x 50 x 20	No.	383	
	Reducing Tee 50 x 50 x 25	No.	393	
	Reducing Tee 50 x 50 x 32	No.	407	
	Reducing Tee 50 x 50 x 40	No.	427	
	Reducing Tee 63 x 63 x 20	No.	614	
	Reducing Tee 63 x 63 x 25	No.	628	
	Reducing Tee 63 x 63 x 32	No.	642	
	Reducing Tee 63 x 63 x 40	No.	659	
	Reducing Tee 63 x 63 x 50	No.	682	
	Reducing Tee 75 x 75 x 40	No.	873	
	Reducing Tee 75 x 75 x 50	No.	887	
	Reducing Tee 75 x 75 x 63	No.	906	
	Reducing Tee 90 x 90 x 50	No.	1271	
	Reducing Tee 90 x 90 x 63	No.	1299	
	Reducing Tee 90 x 90 x 75	No.	1322	
	Reducing Tee 110 x 110 x 50	No.	1756	
	Reducing Tee 110 x 110 x 63	No.	1785	
	Reducing Tee 110 x 110 x 75	No.	1812	
	Reducing Tee 110 x 110 x 90	No.	1844	
	Reducing Tee 125 x 125 x 63	No.	2368	
	Reducing Tee 125 x 125 x 75	No.	2394	
	Reducing Tee 125 x 125 x 90	No.	2425	
	Reducing Tee 125 x 125 x 110	No.	2454	
	Reducing Tee 160 x 160 x 50	No.	4128	
	Reducing Tee 160 x 160 x 63	No.	4146	
	Reducing Tee 160 x 160 x 75	No.	4167	
	Reducing Tee 160 x 160 x 90	No.	4267	
	Reducing Tee 160 x 160 x 110	No.	4362	
	Reducing Tee 180 x 180 x 160	No.	5378	
	Reducing Tee 200 x 200 x 63	No.	8539	
	Reducing Tee 200 x 200 x 75	No.	8581	
	Reducing Tee 200 x 200 x 90	No.	8620	
	Reducing Tee 200 x 200 x 110	No.	8670	
	Reducing Tee 200 x 200 x 160	No.	8717	
	Reducing Tee 250 x 250 x 63	No.	13181	
	Reducing Tee 250 x 250 x 75	No.	13235	
	Reducing Tee 250 x 250 x 90	No.	13277	
	Reducing Tee 250 x 250 x 110	No.	13317	
	Reducing Tee 250 x 250 x 160	No.	13355	
	Reducing Tee 250 x 250 x 200	No.	13412	
	Reducing Tee 315 x 315 x 200	No.	17647	
	Reducing Tee 315 x 315 x 250	No.	18016	
	Reducing Tee 400 x 400 x 110	No.	23037	
	Reducing Tee 400 x 400 x 160	No.	23553	
	Reducing Tee 400 x 400 x 200	No.	24055	
	Reducing Tee 400 x 400 x 250	No.	24417	
	Reducing Tee 400 x 400 x 315	No.	24801	
	Spigot Long Neck Pipe End (Stub End) for Electro Fusion joint			
	LNPE 63	No.	353	
	LNPE 75	No.	397	
	LNPE 90	No.	499	
	LNPE 110	No.	761	
	LNPE 125	No.	1197	
	LNPE 140	No.	1363	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	LNPE 160	No.	1951	
	LNPE 180	No.	2630	
	LNPE 200	No.	3093	
	LNPE 225	No.	3710	
	LNPE 250	No.	4260	
	LNPE 280	No.	4769	
	LNPE 315	No.	6199	
3.	<u>Providing & Supply of Compression fittings.</u> PN16 rated in conformation to ISO:14236-2000 and shall be tested as per ISO:3459, ISO:3501 & ISO:3503, suitable for drinking water & approved by WRAS, UK/ KIWA etc, in food grade polypropylene and shall be inclusive of all cost such as testing, inspection charges, transportation up to store, transit insurance, loading, unloading, stacking excluding GST levied by GOI & GOM in all respect, etc. complete.			
	<u>Male Adaptor</u>			
	Male Adaptor 20 x 1/2"	No.	54	
	Male Adaptor 25 x 3/4"	No.	62	
	Male Adaptor 32 x 1"	No.	80	
	Male Adaptor 40 x 1 1/2"	No.	146	
	Male Adaptor 50 x 1 1/2"	No.	192	
	Male Adaptor 63 x 2"	No.	273	
	<u>Female Adaptor</u>			
	Female Adaptor 20 x 1/2"	No.	58	
	Female Adaptor 25 x 3/4"	No.	68	
	Female Adaptor 32 x 1 "	No.	86	
	Female Adaptor 40 x 1 1/2"	No.	161	
	Female Adaptor 50 x 1 1/2"	No.	205	
	Female Adaptor 63 x 2"	No.	290	
	<u>Coupling</u>			
	Coupling 20 x 20	No.	56	
	Coupling 25 x 25	No.	61	
	Coupling 32 x 32	No.	78	
	Coupling 40 x 40	No.	148	
	Coupling 50 x 50	No.	191	
	Coupling 63 x 63	No.	276	
	<u>Reducing Coupling</u>			
	Reducing Coupling 25 x 20	No.	102	
	Reducing Coupling 32 x 20	No.	135	
	Reducing Coupling 32 x 25	No.	135	
	Reducing Coupling 40 x 25	No.	230	
	Reducing Coupling 40 x 32	No.	230	
	Reducing Coupling 50 x 32	No.	297	
	Reducing Coupling 50 x 40	No.	297	
	Reducing Coupling 63 x 50	No.	422	
	90 Deg. Elbow 20	No.	104	
	90 Deg. Elbow 25	No.	124	
	90 Deg. Elbow 32	No.	151	
	90 Deg. Elbow 40	No.	248	
	90 Deg. Elbow 50	No.	352	
	90 Deg. Elbow 63	No.	477	
	<u>90 Deg. Elbow threaded male take off</u>			
	90 Deg. Elbow threaded male off take 20 x 1/2"	No.	62	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	90 Deg. Elbow threaded male off take 25 x 3/4"	No.	76	
	90 Deg. Elbow threaded male off take 32 x 1"	No.	98	
	90 Deg. Elbow threaded male off take 40 x 1/4"	No.	156	
	90 Deg. Elbow threaded male off take 50 x 1/2"	No.	214	
	90 Deg. Elbow threaded male off take 63 x 2"	No.	297	
	90 Deg. Elbow threaded female off take			
	90 Deg. Elbow threaded Female off take 20 x 1/2"	No.	71	
	90 Deg. Elbow threaded Female off take 25 x 3/4"	No.	87	
	90 Deg. Elbow threaded Female off take 32 x 1"	No.	105	
	90 Deg. Elbow threaded Female off take 40 x 1 1/2"	No.	204	
	90 Deg. Elbow threaded Female off take 50 x 1 1/2"	No.	267	
	90 Deg. Elbow threaded Female off take 63 x 2"	No.	352	
	Equal Tee			
	Equal Tee 20 x 20 x 20	No.	124	
	Equal Tee 25 x 25 x 25	No.	162	
	Equal Tee 32 x 32 x 32	No.	209	
	Equal Tee 40 x 40 x 40	No.	347	
	Equal Tee 50 x 50 x 50	No.	469	
	Equal Tee 63 x 63 x 63	No.	667	
	End Cap			
	End Cap 20	No.	31	
	End Cap 25	No.	31	
	End Cap 32	No.	44	
	End Cap 40	No.	48	
	End Cap 50	No.	50	
	End Cap 63	No.	67	

SECTION – (I)XI
P.C.C. PIPES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
	<u>XI. P. C. C. PIPES Providing and Supplying</u>					
<u>1.</u>	<u>Prestressed Concrete Cylinder Pipes</u> suitable for sliding overlap weld joint or confined rubber ring joint with necessary rubber ring of following class and diameter including cost of transportation, inspection charges to store, transit insurance, unloading and stacking excluding GST levied by GOI & GOM in all respect etc. complete. <u>i) Factory test pressure</u> a) Site test pressure + 01N/mm ² , For working pressure upto 1 N/mm ² b) Site test pressure + 02N/mm ² , For working pressure upto 1 N/mm ² <u>ii) Site test pressure</u> - 1.5 times working pressure pertaining to the section or 1.1 times static pressure, which ever is more (such pressure is to be control within 25% of pumphead incase of pumping main) <u>iii) Working pressure</u> - The maximum sustained internal pressure excluding surge to which each portion of pipeline may be subjected when installed. <u>As Per 784 : 2001 a) F I P - 4 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4445			
ii)	400 mm	Rmt	4886			
iii)	450 mm	Rmt	5368			
iv)	500 mm	Rmt	5940			
v)	600 mm	Rmt	7183			
vi)	700 mm	Rmt	8298			
vii)	800 mm	Rmt	9345			
viii)	900 mm	Rmt	11452			
ix)	1000 mm	Rmt	13225			
x)	1100 mm	Rmt	14807			
xi)	1200 mm	Rmt	16279			
xii)	1300 mm	Rmt	18809			
xiii)	1400 mm	Rmt	20425			
xiv)	1500 mm	Rmt	22853			
xv)	1600 mm	Rmt	24393			
xvi)	1700 mm.	Rmt	25935			
xvii)	1800 mm.	Rmt	27473			
<u>b)</u>	<u>T P - 5.5 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4445			
ii)	400 mm	Rmt	4909			
iii)	450 mm	Rmt	5397			
iv)	500 mm	Rmt	5974			
v)	600 mm	Rmt	7233			
vi)	700 mm	Rmt	8364			
vii)	800 mm	Rmt	9453			
viii)	900 mm	Rmt	11558			
ix)	1000 mm	Rmt	13355			
x)	1100 mm	Rmt	14978			
xi)	1200 mm	Rmt	17086			
xii)	1300 mm	Rmt	19086			
xiii)	1400 mm	Rmt	20779			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xiv)	1500 mm	Rmt	23223			
xv)	1600 mm	Rmt	24764			
xvi)	1700 mm.	Rmt	26304			
xvii)	1800 mm.	Rmt	27845			
c)	<u>F T P - 7 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4455			
ii)	400 mm	Rmt	4929			
iii)	450 mm	Rmt	5421			
iv)	500 mm	Rmt	6006			
v)	600 mm	Rmt	7281			
vi)	700 mm	Rmt	8443			
vii)	800 mm	Rmt	9588			
viii)	900 mm	Rmt	11706			
ix)	1000 mm	Rmt	13558			
x)	1100 mm	Rmt	15225			
xi)	1200 mm	Rmt	17382			
xii)	1300 mm	Rmt	19437			
xiii)	1400 mm	Rmt	21361			
xiv)	1500 mm	Rmt	23257			
xv)	1600 mm	Rmt	24798			
xvi)	1700 mm.	Rmt	26341			
xvii)	1800 mm.	Rmt	27880			
d)	<u>F T P - 8.5 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4473			
ii)	400 mm	Rmt	4957			
iii)	450 mm	Rmt	5449			
iv)	500 mm	Rmt	6040			
v)	600 mm	Rmt	7346			
vi)	700 mm	Rmt	8542			
vii)	800 mm	Rmt	9724			
viii)	900 mm	Rmt	11872			
ix)	1000 mm	Rmt	13761			
x)	1100 mm	Rmt	15472			
xi)	1200 mm	Rmt	17829			
xii)	1300 mm	Rmt	19949			
xiii)	1400 mm	Rmt	21768			
xiv)	1500 mm	Rmt	23681			
xv)	1600 mm	Rmt	25221			
xvi)	1700 mm.	Rmt	26762			
xvii)	1800 mm.	Rmt	28302			
e)	<u>F T P - 10 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4489			
ii)	400 mm	Rmt	4976			
iii)	450 mm	Rmt	5484			
iv)	500 mm	Rmt	6091			
v)	600 mm	Rmt	7416			
vi)	700 mm	Rmt	8638			
vii)	800 mm	Rmt	9870			
viii)	900 mm	Rmt	12037			
ix)	1000 mm	Rmt	13963			
x)	1100 mm	Rmt	15860			
xi)	1200 mm	Rmt	18130			
xii)	1300 mm	Rmt	20305			
xiii)	1400 mm	Rmt	22184			
xiv)	1500 mm	Rmt	24115			
xv)	1600 mm	Rmt	25659			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xvi)	1700 mm.	Rmt	27199			
xvii)	1800 mm.	Rmt	28739			
f)	<u>F T P - 11.5 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4507			
ii)	400 mm	Rmt	5007			
iii)	450 mm	Rmt	5524			
iv)	500 mm	Rmt	6142			
v)	600 mm	Rmt	7491			
vi)	700 mm	Rmt	8736			
vii)	800 mm	Rmt	10145			
viii)	900 mm	Rmt	11140			
ix)	1000 mm	Rmt	14168			
x)	1100 mm	Rmt	16113			
xi)	1200 mm	Rmt	18434			
xii)	1300 mm	Rmt	20665			
xiii)	1400 mm	Rmt	22605			
xiv)	1500 mm	Rmt	24554			
xv)	1600 mm	Rmt	26094			
xvi)	1700 mm.	Rmt	27635			
xvii)	1800 mm.	Rmt	29176			
g)	<u>F T P - 13 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4542			
ii)	400 mm	Rmt	5048			
iii)	450 mm	Rmt	5570			
iv)	500 mm	Rmt	6193			
v)	600 mm	Rmt	7563			
vi)	700 mm	Rmt	8835			
vii)	800 mm	Rmt	10314			
viii)	900 mm	Rmt	12367			
ix)	1000 mm	Rmt	14465			
x)	1100 mm	Rmt	16369			
xi)	1200 mm	Rmt	18744			
xii)	1300 mm	Rmt	21029			
xiii)	1400 mm	Rmt	23020			
xiv)	1500 mm	Rmt	24988			
xv)	1600 mm	Rmt	26530			
xvi)	1700 mm.	Rmt	28069			
xvii)	1800 mm.	Rmt	29598			
h)	<u>F T P - 14.5 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4582			
ii)	400 mm	Rmt	5094			
iii)	450 mm	Rmt	5627			
iv)	500 mm	Rmt	6252			
v)	600 mm	Rmt	7640			
vi)	700 mm	Rmt	9417			
vii)	800 mm	Rmt	10481			
viii)	900 mm	Rmt	12654			
ix)	1000 mm	Rmt	14677			
x)	1100 mm	Rmt	16624			
xi)	1200 mm	Rmt	19048			
xii)	1300 mm	Rmt	21387			
xiii)	1400 mm	Rmt	24059			
xiv)	1500 mm	Rmt	26072			
xv)	1600 mm	Rmt	27614			
xvi)	1700 mm.	Rmt	29154			
xvii)	1800 mm.	Rmt	30694			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
<u>j)</u>	<u>F T P - 17 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4618			
ii)	400 mm	Rmt	5141			
iii)	450 mm	Rmt	5683			
iv)	500 mm	Rmt	6321			
v)	600 mm	Rmt	7739			
vi)	700 mm	Rmt	9038			
vii)	800 mm	Rmt	10684			
viii)	900 mm	Rmt	12834			
ix)	1000 mm	Rmt	14891			
x)	1100 mm	Rmt	16894			
xi)	1200 mm	Rmt	19359			
xii)	1300 mm	Rmt	21753			
xiii)	1400 mm	Rmt	24522			
xiv)	1500 mm	Rmt	26558			
xv)	1600 mm	Rmt	28098			
xvi)	1700 mm.	Rmt	29640			
xvii)	1800 mm.	Rmt	31180			
<u>j)</u>	<u>F T P - 18.5 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4653			
ii)	400 mm	Rmt	5187			
iii)	450 mm	Rmt	5741			
iv)	500 mm	Rmt	6390			
v)	600 mm	Rmt	7836			
vi)	700 mm	Rmt	9151			
vii)	800 mm	Rmt	11035			
viii)	900 mm	Rmt	13058			
ix)	1000 mm	Rmt	15146			
x)	1100 mm	Rmt	17157			
xi)	1200 mm	Rmt	19669			
xii)	1300 mm	Rmt	22798			
xiii)	1400 mm	Rmt	25159			
xiv)	1500 mm	Rmt	26673			
xv)	1600 mm	Rmt	28215			
xvi)	1700 mm.	Rmt	29756			
xvii)	1800 mm.	Rmt	31296			
<u>k)</u>	<u>F T P - 20 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4690			
ii)	400 mm	Rmt	5235			
iii)	450 mm	Rmt	5798			
iv)	500 mm	Rmt	6463			
v)	600 mm	Rmt	7934			
vi)	700 mm	Rmt	9378			
vii)	800 mm	Rmt	11299			
viii)	900 mm	Rmt	13356			
ix)	1000 mm	Rmt	15497			
x)	1100 mm	Rmt	17564			
xi)	1200 mm	Rmt	20698			
xii)	1300 mm	Rmt	23288			
xiii)	1400 mm	Rmt	25715			
xiv)	1500 mm	Rmt	27253			
xv)	1600 mm	Rmt	28794			
xvi)	1700 mm.	Rmt	30335			
xvii)	1800 mm.	Rmt	31875			
<u>l)</u>	<u>F T P - 21.5 Kg/Sq. cm</u>					
i)	350 mm	Rmt	4732			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
ii)	400 mm	Rmt	5282			
iii)	450 mm	Rmt	5854			
iv)	500 mm	Rmt	6531			
v)	600 mm	Rmt	8050			
vi)	700 mm	Rmt	9837			
vii)	800 mm	Rmt	11479			
viii)	900 mm	Rmt	13654			
ix)	1000 mm	Rmt	15851			
x)	1100 mm	Rmt	18448			
xi)	1200 mm	Rmt	21211			
xii)	1300 mm	Rmt	23829			
xiii)	1400 mm	Rmt	27126			
xiv)	1500 mm	Rmt	28725			
xv)	1600 mm	Rmt	30269			
xvi)	1700 mm.	Rmt	31809			
xvii)	1800 mm.	Rmt	33351			
m)	F T P - 23 Kg/Sq. cm					
i)	350 mm	Rmt	4767			
ii)	400 mm	Rmt	5327			
ii)	450 mm	Rmt	5914			
iv)	500 mm	Rmt	6600			
v)	600 mm	Rmt	8219			
vi)	700 mm	Rmt	10148			
vii)	800 mm	Rmt	11831			
viii)	900 mm	Rmt	13949			
ix)	1000 mm	Rmt	16203			
x)	1100 mm	Rmt	18937			
xi)	1200 mm	Rmt	21735			
xii)	1300 mm	Rmt	24505			
xiii)	1400 mm	Rmt	27630			
xiv)	1500 mm	Rmt	29250			
xv)	1600 mm	Rmt	30792			
xvi)	1700 mm.	Rmt	32333			
xvii)	1800 mm.	Rmt	33871			
n)	F T P - 24.5 Kg/Sq. cm					
i)	350 mm	Rmt	4804			
ii)	400 mm	Rmt	5376			
iii)	450 mm	Rmt	5972			
iv)	500 mm	Rmt	6672			
v)	600 mm	Rmt	8549			
vi)	700 mm	Rmt	10287			
vii)	800 mm	Rmt	11844			
viii)	900 mm	Rmt	14186			
ix)	1000 mm	Rmt	16963			
x)	1100 mm	Rmt	19427			
xi)	1200 mm	Rmt	22262			
xii)	1300 mm	Rmt	26448			
xiii)	1400 mm	Rmt	28157			
xiv)	1500 mm	Rmt	29798			
xv)	1600 mm	Rmt	31339			
xvi)	1700 mm.	Rmt	32878			
xvii)	1800 mm.	Rmt	34420			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	Note	:		
1)	For PCCP pipes lowering, laying, and pouring of cement mortar in the field on joints (after laying and welding), rates as per PSC pipes lowering, laying and jointing shall be adopted.			
2)	For field welding rates applicable for similar welding in MS pipes given in that section shall be adopted.			
3)	Whenever manufacturer is separate and contractor for lowering, laying, jointing and testing is separate the principal contractor shall enter into an agreement with PCCP pipe manufacturer for satisfactory manufacturing transporting, lowering, laying, jointing and testing of pipes.			
	This foot notes shall appear in the tender conditions.			
4)	Only 85% providing rates shall be payable til satisfactory Hydraulic testing is given.			

SECTION – (I)XII
PIPE APPURTENANCES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	<u>XII. PIPES APPURTENANCES</u>			
1.	Providing and supplying <u>ISI mark CI D/F reflux valves</u> (non-return valves) of following dia including railway freight, inspection charges, unloading from railway wagon, loading into truck, transportation upto departmental stores, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. complete. Reflux valves as per I.S.5312 Part I (1984)			
	<u>a) Without by pass arrangement -PN -1</u>			
i)	50 mm.	No.	3102	
ii)	65 mm.	No.	3631	
iii)	80 mm.	No.	3824	
iv)	100 mm.	No.	5339	
v)	125 mm.	No.	7623	
vi)	150 mm.	No.	9230	
vii)	200 mm.	No.	16590	
viii)	250 mm.	No.	28312	
ix)	300 mm.	No.	38794	
x)	350 mm.	No.	60343	
xi)	400 mm.	No.	71777	
xii)	450 mm.	No.	103211	
xiii)	500 mm.	No.	152929	
xiv)	600 mm.	No.	187271	
xv)	700 mm.	No.	439275	
	<u>b) With by pass arrangement - PN -1</u>			
i)	80 mm.	No.	4415	
ii)	100 mm.	No.	6290	
iii)	125 mm.	No.	8565	
iv)	150 mm.	No.	10171	
v)	200 mm.	No.	18963	
vi)	250 mm.	No.	30996	
vii)	300 mm.	No.	41606	
viii)	350 mm.	No.	68214	
ix)	400 mm.	No.	82545	
x)	450 mm.	No.	107098	
xi)	500 mm.	No.	173812	
xii)	600 mm.	No.	215361	
xiii)	700 mm.	No.	664985	
xiv)	750 mm.	No.	727888	
xv)	800 mm.	No.	790792	
xvi)	900 mm.	No.	862683	
xvii)	1000 mm.	No.	1006464	
	<u>c) Without by pass arrangement - PN -1.6</u>			
i)	50 mm.	No.	3025	
ii)	65 mm.	No.	3268	
iii)	80 mm.	No.	5361	
iv)	100 mm.	No.	6867	
v)	125 mm.	No.	9567	
vi)	150 mm.	No.	13005	
vii)	200 mm.	No.	22770	
viii)	250 mm.	No.	36554	
ix)	300 mm.	No.	49420	
x)	350 mm.	No.	75429	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xi)	400 mm.	No.	89722			
xii)	450 mm.	No.	119948			
xiii)	500 mm.	No.	191160			
xiv)	600 mm.	No.	234088			
xv)	700 mm.	No.	345994			
xvi)	750 mm.	No.	397187			
xvii)	800 mm.	No.	451912			
xviii)	900 mm.	No.	571949			
xix)	1000 mm.	No.	706111			
xx)	1100 mm	No.	854392			
xxi)	1200 mm	No.	1017173			
d)	With by pass arrangement - PN -1.6					
i)	50 mm.	No.	3105			
ii)	65 mm	No.	3495			
iii)	80 mm.	No.	5143			
iv)	100 mm.	No.	6650			
v)	125 mm.	No.	9293			
vi)	150 mm	No.	11279			
vii)	200 mm.	No.	22782			
viii)	250 mm.	No.	34426			
ix)	300 mm.	No.	52012			
x)	350 mm.	No.	80367			
xi)	400 mm.	No.	103181			
xii)	450 mm.	No.	123163			
xiii)	500 mm.	No.	199917			
xiv)	600 mm.	No.	269201			
xv)	700 mm.	No.	352410			
xvi)	750 mm.	No.	404553			
xvii)	800 mm.	No.	460292			
xviii)	900 mm.	No.	582557			
xix)	1000 mm.	No.	719204			
xx)	1100 mm	No.	870238			
xxi)	1200 mm	No.	1035654			
2.	Providing double flange sluice valve confirming for IS- 14846 including worn gear arrangements as per test pressure, stainless steel spindle, caps, including inspection charges, transportation upto departmental store, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. complete.					
a)	Sluice valves - PN -1 (Without by pass)					
i)	50 mm.	No.	3923			
ii)	65 mm.	No.	4641			
iii)	80 mm.	No.	4796			
iv)	100 mm.	No.	6388			
v)	125 mm.	No.	7989			
vi)	150 mm.	No.	9580			
vii)	200 mm.	No.	17365			
viii)	250 mm.	No.	26848			
ix)	300 mm.	No.	34085			
x)	350 mm.	No.	50141			
xi)	400 mm.	No.	66014			
xii)	450 mm.	No.	70972			
xiii)	500 mm.	No.	102290			
xiv)	600 mm.	No.	151547			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xv)	700 mm.	No.	281691			
xvi)	750 mm.	No.	319114			
xvii)	800 mm.	No.	389272			
xviii)	900 mm.	No.	510436			
xix)	1000 mm.	No.	763408			
xx)	1100 mm	No.	978703			
xxi)	1200 mm.	No.	1157135			
b) Sluice valves : PN -1.0 (With by pass arrangement)						
i)	50 mm.	No.	4117			
ii)	65 mm.	No.	4651			
iii)	80 mm.	No.	4796			
iv)	100 mm.	No.	6388			
v)	125 mm.	No.	7989			
vi)	150 mm.	No.	10089			
vii)	200 mm.	No.	17397			
viii)	250 mm.	No.	26879			
ix)	300 mm.	No.	34115			
x)	350 mm.	No.	52005			
xi)	400 mm.	No.	66112			
xii)	450 mm.	No.	81511			
xiii)	500 mm.	No.	102443			
xiv)	600 mm.	No.	151771			
xv)	700 mm.	No.	286437			
xvi)	750 mm.	No.	319431			
xvii)	800 mm.	No.	389656			
xviii)	900 mm.	No.	510941			
xix)	1000 mm.	No.	775059			
xx)	1100 mm	No.	979672			
xxi)	1200 mm.	No.	1158240			
c) Sluice valve : PN : 1.6 (Without by pass arrangement)						
i)	50 mm.	No.	4917			
ii)	65 mm.	No.	5800			
iii)	80 mm.	No.	6316			
iv)	100 mm.	No.	8416			
v)	125 mm.	No.	10515			
vi)	150 mm.	No.	11152			
vii)	200 mm.	No.	21711			
viii)	250 mm.	No.	33569			
ix)	300 mm.	No.	42629			
x)	350 mm.	No.	64910			
xi)	400 mm.	No.	82403			
xii)	450 mm.	No.	101829			
xiii)	500 mm.	No.	127794			
xiv)	600 mm.	No.	189388			
xv)	700 mm.	No.	286861			
xvi)	750 mm.	No.	319904			
xvii)	800 mm.	No.	390235			
xviii)	900 mm.	No.	511699			
xix)	1000 mm.	No.	789331			
xx)	1100 mm	No.	981127			
xxi)	1200 mm.	No.	1159998			
d) Sluice valve : PN : 1.6 (With by pass arrangement)						
i)	50 mm.	No.	5442			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
ii)	65 mm.	No.	5811			
iii)	80 mm.	No.	6327			
iv)	100 mm.	No.	8432			
v)	125 mm.	No.	10530			
vi)	150 mm.	No.	12610			
vii)	200 mm.	No.	21742			
viii)	250 mm.	No.	33601			
ix)	300 mm.	No.	42659			
x)	350 mm.	No.	65006			
xi)	400 mm.	No.	82526			
xii)	450 mm.	No.	101980			
xiii)	500 mm.	No.	127983			
xiv)	600 mm.	No.	189670			
xv)	700 mm.	No.	287216			
xvi)	750 mm.	No.	320299			
xvii)	800 mm.	No.	390718			
xviii)	900 mm.	No.	512332			
xix)	1000 mm.	No.	790305			
xx)	1100 mm.	No.	982337			
xxi)	1200 mm.	No.	1161432			
3	Providing, <u>double flanged short body pattern type manually operated Butterfly Valve</u> having body, disc and end cover in graded cast iron to IS-210 Gr.CF 200 generally confirming to IS-13095-1991, Synthetic rubber faced ring secured on disc by retaining ring with stainless steel screw stub shaft of stainless steel riding in teflon bearing including inspection charges, transportation up to departmental store, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. excluding C.C. foundation /structural steel support.					
a)	<u>Butterfly valve - PN - 1 (With by pass arrangement)</u>					
i)	80 mm.	No.	5445			
ii)	100 mm.	No.	6961			
iii)	125 mm.	No.	7939			
iv)	150 mm.	No.	10262			
v)	200 mm.	No.	13675			
vi)	250 mm.	No.	17093			
vii)	300 mm.	No.	27046			
viii)	350 mm.	No.	44378			
ix)	400 mm.	No.	55057			
x)	450 mm.	No.	64265			
xi)	500 mm.	No.	69421			
xii)	600 mm.	No.	81299			
xiii)	700 mm.	No.	121901			
xiv)	750 mm.	No.	144366			
xv)	800 mm.	No.	153756			
xvi)	900 mm.	No.	197398			
xvii)	1000 mm.	No.	254482			
xviii)	1100 mm.	No.	545472			
xix)	1200 mm.	No.	516163			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xx)	1400 mm	No.	787015			
xxi)	1500 mm	No.	977904			
b)	<u>Butterfly valve - PN - 1.6 (With by pass arrangement)</u>					
i)	80 mm.	No.	6042			
ii)	100 mm.	No.	7911			
iii)	125 mm.	No.	8735			
iv)	150 mm.	No.	11800			
v)	200 mm.	No.	15729			
vii)	250 mm.	No.	19657			
viii)	300 mm.	No.	31103			
viii)	350 mm.	No.	55472			
ix)	400 mm.	No.	67955			
x)	450 mm.	No.	78510			
xi)	500 mm.	No.	86205			
xii)	600 mm	No.	101624			
xiii)	700 mm	No.	152376			
xiv)	750 mm	No.	180457			
xv)	800 mm	No.	192196			
xvi)	900 mm	No.	246748			
xvii)	1000 mm	No.	318102			
xviii)	1100 mm	No.	645207			
xix)	1200 mm	No.	681832			
xx)	1400 mm	No.	983769			
xxi)	1500 mm	No.	1214115			
4.	Lowering, laying and jointing in position following <u>C.I.D/F Reflex valves, Butterfly valves and Sluice valves</u> including cost of all labour jointing material, including nut bolts and giving satisfactory hydraulic testing etc. complete. (Rate for all class of valves.)					
i)	50 mm.	No.	757			
ii)	65 mm.	No.	1137			
iii)	80 mm.	No.	1580			
iv)	100 mm.	No.	2065			
v)	125 mm.	No.	2571			
vi)	150 mm.	No.	3245			
vii)	200 mm.	No.	3376			
viii)	250 mm.	No.	4399			
ix)	300 mm.	No.	4563			
x)	350 mm.	No.	5623			
xi)	400 mm.	No.	6784			
xii)	450 mm.	No.	8072			
xii)	500 mm.	No.	8358			
xiv)	600 mm.	No.	8872			
xv)	700 mm.	No.	9565			
xvi)	750 mm.	No.	10534			
xvii)	800 mm.	No.	12552			
xviii)	900 mm.	No.	13319			
xix)	1000 mm.	No.	15701			
xx)	1100 mm.	No.	18130			
xxi)	1200 mm.	No.	19923			
b.	Giving satisfactory <u>hydraulic testing of following C. I. D / F Reflex valves, Butterfly valves and Sluice valves.</u>					

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
i)	50 mm.	No.	85			
ii)	65 mm.	No.	127			
iii)	80 mm.	No.	176			
iv)	100 mm.	No.	229			
v)	125 mm.	No.	285			
vi)	150 mm.	No.	361			
vii)	200 mm.	No.	375			
viii)	250 mm.	No.	488			
ix)	300 mm.	No.	507			
x)	350 mm.	No.	625			
xi)	400 mm.	No.	755			
xii)	450 mm.	No.	897			
xii)	500 mm.	No.	930			
xiv)	600 mm.	No.	986			
xv)	700 mm.	No.	1064			
xvi)	750 mm.	No.	1170			
xvii)	800 mm.	No.	1395			
xviii)	900 mm.	No.	1481			
xix)	1000 mm.	No.	1745			
xx)	1100 mm.	No.	2015			
xxi)	1200 mm. to 1500 mm	No.	2213			
5.	Providing and supplying Air Valves as per IS- 14845-2000 and MJP's standard specifications of approved make and quality of following diameters including railway freight, inspection charges, unloading from railway wagons, loading into truck, transportation upto departmental stores, unloading and stacking excluding GST levied by GOI & GOM in all respect etc. complete.					
a)	<u>Air Valve Single Ball Flanged / Screwed Type - PN -1</u>					
i)	12/15 mm.	No.	592			
ii)	20 mm.	No.	714			
iii)	25 mm.	No.	985			
iv)	32 mm.	No.	1076			
v)	40 mm.	No.	1184			
vi)	50 mm.	No.	1300			
b)	<u>Air Valve Single Ball Flanged / Screwed Type - PN -1.6</u>					
i)	12/15 mm.	No.	693			
ii)	20 mm.	No.	985			
iii)	25 mm.	No.	1184			
iv)	32 mm.	No.	1276			
v)	40 mm.	No.	1367			
vi)	50 mm.	No.	1784			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
6.	Providing and supplying Air Valves as per IS- 14845 and MJP's standard specifications double orifice type combined with screw down isolating valve, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including insurance, third party inspection charges, loading, unloading, transportation upto departmental stores, excluding GST levied by GOI & GOM in all respect etc. complete.					
a)	<u>Air Valve Double Ball Flanged Type - PN -1</u>					
i)	50 mm.	No.	5467			
ii)	65 mm.	No.	6379			
iii)	80 mm.	No.	7286			
b)	<u>Air Valve Double Ball Flanged Type - PN - 1.6</u>					
i)	50 mm.	No.	7242			
ii)	65 mm.	No.	8201			
iii)	80 mm.	No.	10148			
7.	Providing and supplying Air Valves as per IS- 14845-2000 and MJP's standard specifications double orifice type combined with isolating sluice valve, mounted in horizontal position and operated by wheel gearing, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including insurance, third party inspection charges, loading, unloading, transportation upto departmental store, excluding GST levied by GOI & GOM in all respect etc. complete.					
a)	<u>Air Valve Double Ball Flanged Type - PN -1</u>					
i)	100 mm.	No.	9214			
ii)	150 mm.	No.	16792			
iii)	200 mm.	No.	28239			
b)	<u>Air Valve Double Ball Flanged Type - PN - 1.6</u>					
i)	100 mm.	No.	14087			
ii)	150 mm.	No.	19845			
iii)	200 mm.	No.	33375			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
8.	Providing and supplying Kinetic Double Orifice type Air Valves confirming to IS 14845 as per MJP's standard specifications combined with screw down isolating valve, small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face and drilled, including insurance, third party inspection charges, loading, unloading, transportation upto departmental stores, excluding GST levied by GOI & GOM in all respect etc. complete.					
a)	Kinetic Air Valve Flanged Type - PN -1					
i)	40 mm.	No.	8471			
ii)	50 mm.	No.	9576			
iii)	80 mm.	No.	11233			
b)	Kinetic Air Valve Flanged Type - PN -1.6					
i)	40 mm.	No.	10588			
ii)	50 mm.	No.	11969			
iii)	80 mm.	No.	14040			
9.	Providing and supplying Kinetic Double Orifice type Air Valves confirming to IS 14845 as per MJP's standard specifications having small orifice elastic ball resting on a gun metal orifice nipple, large orifice vulcanite ball seating on moulded seat ring, with built-in Kinetic features, isolating sluice valve mounted in horizontal position and operated by wheel gearing, inlet face and drilled, including insurance, third party inspection charges, loading, unloading, transportation upto departmental stores, excluding GST levied by GOI & GOM in all respect etc. complete.					
	a) Kinetic Air Valve Flanged Type - PN -1					
i)	100 mm.	No.	12245			
ii)	150 mm.	No.	17126			
iii)	200 mm.	No.	26700			
	b) Kinetic Air Valve Flanged Type - PN -1.6					
i)	100 mm.	No.	15308			
ii)	150 mm.	No.	21406			
iii)	200 mm.	No.	33375			
10.	Lowering, laying and fixing in proper alignment and position all types of C.I. air valves as directed by Engineer-in-charge including cost of conveyance from stores to site of work, cost of all material and giving satisfactory hydraulic testing, etc. complete. (for all class of valves).					
a)	Air Valve Single Ball (PN-1 and PN - 1.6)					

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
i)	15 mm.	No.	121			
ii)	20 mm.	No.	153			
iii)	25 mm.	No.	198			
iv)	32 mm.	No.	219			
v)	40 mm.	No.	234			
vi)	50 mm.	No.	254			
vii)	65 mm.	No.	267			
viii)	80 mm.	No.	279			
ix)	100 mm.	No.	312			
x)	125 mm.	No.	378			
xi)	150 mm.	No.	420			
xii)	200 mm.	No.	462			
b)	<u>Air Valve Double Ball (PN-1 and PN - 1.6)</u>					
i)	15 mm.	No.	132			
ii)	20 mm.	No.	164			
iii)	25 mm.	No.	198			
iv)	32 mm.	No.	224			
v)	40 mm.	No.	262			
vi)	50 mm.	No.	303			
vii)	65 mm.	No.	349			
viii)	80 mm.	No.	416			
ix)	100 mm.	No.	440			
x)	125 mm.	No.	484			
xi)	150 mm.	No.	662			
xii)	200 mm.	No.	728			
	<u>c) Kinetic Air Valve (PN-1 and PN - 1.6)</u>					
i)	40 mm.	No.	300			
ii)	50 mm.	No.	347			
iii)	65 mm.	No.	378			
iv)	80 mm.	No.	416			
v)	100 mm.	No.	458			
vi)	125 mm.	No.	499			
vii)	150 mm.	No.	716			
viii)	200 mm.	No.	780			
11.	<u>Providing erecting Cast Steel/ Spheroidal Graphite (S.G) Iron D/F Sluice Valves / Butterfly Valves</u> with jointing to pipe work (including all hardware and packing) water works quality, having non-rising spindle with hand wheel and without bypass arrangement, spindle of stainless steel as per requirement, inspection charges, transportation upto departmental store, unloading, stacking, excluding GST levied by GOI & GOM in all respect etc. excluding C. C. foundation / structural steel support.					
A)	<u>A) For Rating Class 150 (Working Pressure 20 kg/cm2 and Test Pressure 30 kg/cm2)</u>					
a)	<u>Sluice Valves. CS-150</u>					
i)	80 mm dia.	No.	14124			
ii)	100 mm dia.	No.	18831			
iii)	150 mm dia.	No.	28247			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
iv)	200 mm dia.	No.	44053			
v)	250 mm dia.	No.	63396			
vi)	300 mm dia.	No.	81115			
vii)	350 mm dia.	No.	108154			
viii)	400 mm dia.	No.	180478			
ix)	450 mm dia.	No.	246243			
x)	500 mm dia.	No.	289697			
xi)	600 mm dia.	No.	330736			
b)	<u>Butterfly Valves. CS-150</u>					
i)	300 mm	No.	101999			
ii)	350 mm	No.	108736			
iii)	400 mm	No.	122134			
iv)	450 mm	No.	130109			
v)	500 mm	No.	150611			
vi)	600 mm	No.	169496			
12.	<u>Providing erecting Cast Steel D/F Sluice Valves / Butterfly Valves</u> with jointing to pipe work (including all hardware and packing) water works quality having non-rising spindle with hand wheel and without bypass arrangement, spindle of stainless steel as per requirement, inspection charges, transportation upto departmental store, unloading, stacking, excluding GST levied by GOI & GOM in all respect etc. excluding C. C. foundation / structural steel support.					
	<u>For Rating Class 300 (Working Pressure 52 kg/cm2 and Test Pressure 78 kg/cm2)</u>					
a)	<u>Sluice Valves CS-300</u>					
i)	80 mm	No.	15203			
ii)	100 mm	No.	24003			
iii)	150 mm	No.	36596			
iv)	200 mm	No.	57395			
v)	250 mm	No.	61956			
vi)	300 mm	No.	104445			
vii)	350 mm	No.	176149			
viii)	400 mm	No.	256971			
ix)	450 mm	No.	309395			
x)	500 mm	No.	482009			
xi)	600 mm	No.	728543			
b)	<u>Butterfly Valves CS-300</u>					
i)	300 mm	No.	124438			
ii)	350 mm	No.	132659			
iii)	400 mm	No.	149003			
iv)	450 mm	No.	158733			
v)	500 mm	No.	183747			
vi)	600 mm	No.	206785			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
13.	<u>Providing erecting Cast Steel /Spheroidal Graphite (S.G.) Iron D/F Reflux Valves</u> Single Door with jointing to pipe work (including all hardware and packing) water works quality with jointing to pipe without bypass arrangement, with gunmetal seats including inspection charges, transportation upto departmental store, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. completed but excluding C. C. foundation / structural steel support.					
	<u>For Rating Class 150 (Working Pressure 20 kg/cm2 and Test Pressure 30 kg/cm2)</u>					
	<u>Reflux valve CS-150</u>					
i)	80 mm	No.	9856			
ii)	100 mm	No.	15091			
iii)	150 mm	No.	25566			
iv)	200 mm	No.	48610			
v)	250 mm	No.	84641			
vi)	300 mm	No.	111510			
14.	<u>Providing erecting Cast Steel D/F Reflux Valves</u> Single door with jointing to pipe work (including all hardware and packing) water works quality with jointing to pipe without bypass arrangement, with gunmetal seat including inspection charges, transportation upto departmental store, unloading, stacking excluding GST levied by GOI & GOM in all respect etc. completed but excluding C. C. foundation / structural steel support.					
	<u>For Rating Class 300 (Working Pressure 52 kg/cm2 and Test Pressure 78 kg/cm2)</u>					
	<u>Reflux valve CS-300</u>					
i)	80 mm	No.	14684			
ii)	100 mm	No.	20697			
iii)	150 mm	No.	34419			
iv)	200 mm	No.	60975			
v)	250 mm	No.	110393			
vi)	300 mm	No.	134411			
15.	<u>Providing, erecting Kinetic Double Orifice Cast Steel Air Valves</u> with an isolating Sluice Valve mounted in horizontal position operated by wheel gear suitable for working pressure of Class 300 rating (52 kg/cm2)					
	<u>Air valve CS-150</u>					
i)	80 mm	No.	28474			
ii)	100 mm	No.	39689			
iii)	150 mm	No.	76053			
iv)	200 mm	No.	98308			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
16.	Providing, erecting <u>Kinetic Double Orifice Cast Steel Air Valves</u> with an isolating Sluice Valve mounted in horizontal position operated by wheel gear suitable for working pressure of Class 300 rating (52 kg/cm ²)					
	<u>KDB Air valve CS-300</u>					
i)	80 mm	No.	34689			
ii)	100 mm	No.	39653			
iii)	150 mm	No.	92664			
iv)	200 mm	No.	111855			
17.	<u>Providing and fixing in position air valve shaft</u> including providing and fixing GI Medium Class or 6 mm thick M.S. pipe shaft 2.70 M long over branch flange of air valve tee, providing PCC block of M-150 concrete, 150 mm thick around the air valve tee including encasing of vertical shaft in PCC M-150 as shown in type design together with providing and making flanged joints wherever required and fixing of air valve tee, etc. complete as per type design and as directed by Engineer -in- charge for following diameters of pipe lines (type design attached.)					
a)	<u>Foundation on Murum and Harder Strata.</u>					
i)	upto 150mm	No.	5071			
ii)	200 to 400 mm	No.	5941			
iii)	450 to 900mm	No.	12082			
iv)	1000 to 1200 mm	No.	15172			
b)	<u>Foundation in B. C. Soil or Any Other Soil.</u>					
i)	upto 150 mm	No.	6008			
ii)	200 to 400 mm	No.	7247			
iii)	450 to 900 mm	No.	13801			
iv)	1000 to 1200 mm	No.	17307			
18.	Providing and supplying <u>C.I. D/F angle type spring loaded pressure relief valves</u> of approved make and quality including inspection charges, transportation to departmental stores excluding GST levied by GOI & GOM in all respect etc. complete.					
a)	<u>Type PN-1</u>					
i)	25 mm	No.	3974			
ii)	40 mm	No.	5179			
iii)	50 mm	No.	6707			
iv)	80 mm	No.	10171			
v)	100 mm	No.	14238			
vi)	125 mm	No.	19414			
vii)	150 mm	No.	22184			
viii)	200 mm	No.	48987			
ix)	250 mm	No.	68860			
x)	300 mm	No.	90812			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
b)	Type PN-1.6					
i)	25 mm	No	4968			
ii)	40 mm	No	6470			
iii)	50 mm	No	7334			
iv)	80 mm	No	11772			
v)	100 mm	No	16162			
vi)	125 mm	No	24261			
vii)	150 mm	No	27729			
viii)	200 mm	No	61230			
ix)	250 mm	No	86074			
x)	300 mm	No	113780			
19.	Lowering, laying and fixing in proper alignment and position all types of C.I. D/F angle type spring loaded pressure relief valves including cost of all material, labour, cost of conveyance from stores to site of work and giving satisfactory hydraulic testing, etc. complete. (For all class of valves.)					
i)	25 mm	No	226			
ii)	40 mm	No	300			
iii)	50 mm	No	348			
iv)	80 mm	No	415			
v)	100 mm	No	455			
vi)	125 mm	No	507			
vii)	150 mm	No	716			
viii)	200 mm	No	781			
ix)	250 mm	No	912			
x)	300 mm	No	1041			
20.	Cutting and champhering of pipes of following diameters including cost of all materials and labour involved, etc. complete as directed by Engineer-in-charge (for all class of pipes).					
a)	C.I.Pipes					
i)	80 mm	No	41			
ii)	100 mm	No	47			
iii)	150 mm	No	73			
iv)	200 mm	No	92			
v)	250 mm	No	132			
vi)	300 mm	No	156			
vii)	350 mm	No	161			
viii)	400 mm	No	204			
ix)	450 mm	No	237			
x)	500 mm	No	283			
xi)	600 mm	No	345			
xii)	700 mm	No	407			
xiii)	750 mm	No	486			
xiv)	800 mm	No	531			
xv)	900 mm	No	584			
xvi)	1000 mm	No	635			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
21.	Providing and supplying I.S.I. mark rubber gasket suitable for C.I. or D. I. pipe of all class for tyton joints including inspection charges, transportation upto departmental stores excluding GST levied by GOI & GOM in all respect etc. complete.					
a)	<u>S.B.R. Gaskets for C. I. / D.I. Pipes</u>					
i)	80 mm	No	39			
ii)	100 mm	No	43			
III)	150 mm	No	60			
iv)	200 mm	No	102			
v)	250 mm	No	132			
vi)	300 mm	No	186			
vii)	350 mm	No	213			
viii)	400 mm	No	296			
ix)	450 mm	No	323			
x)	500 mm	No	441			
xi)	600 mm	No	612			
xii)	700 mm	No	1089			
xiii)	750 mm	No	1132			
xiv)	800 mm	No	1173			
xv)	900 mm	No	1696			
xvi)	1000 mm	No	2179			
b)	<u>Sealing ' O' Rings of SBR (for CID Joints)</u>					
i)	80 mm	Set.	44			
ii)	100 mm	Set.	54			
iii)	125 mm	Set.	63			
iv)	150 mm	Set.	75			
c)	<u>Flat Flanged Gaskets moulded out of SBR (ForFlanged Joints)</u>					
i)	80 mm	No.	82			
ii)	100 mm	No.	108			
iii)	125 mm	No.	128			
iv)	150 mm	No.	176			
v)	200 mm	No.	217			
vi)	250 mm	No.	305			
vii)	300 mm	No.	323			
viii)	350 mm	No.	392			
ix)	400 mm	No.	484			
x)	450 mm	No.	529			
xi)	500 mm	No.	620			
xii)	600 mm	No.	834			
d)	<u>Providing Rubber Gasket - EPDM Gaskets for C. I. / D.I. Pipes</u>					
i)	80 mm.	No	45			
ii)	100 mm.	No	47			
iii)	150 mm.	No	70			
iv)	200 mm.	No	117			
v)	250 mm.	No	160			
vi)	300 mm.	No	211			
vii)	350 mm.	No	246			
viii)	400 mm.	No	336			
ix)	450 mm.	No	376			
x)	500 mm.	No	498			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
xi)	600 mm.	No	699			
xii)	700 mm.	No	1313			
xiii)	750 mm.	No	1376			
xiv)	800 mm.	No	1678			
xv)	900 mm.	No	2166			
xvi)	1000 mm	No	2517			
22.	Providing and fixing in position and jointing high performance C. I. Air valves for water combination type (Kinetic air valve along with automatic air valves) double ball, double orifice with stainless steel ball, tamper proof air vents rolling seal mechanism for air release and anti vacuum application designed for 16 Kg. Per sq. cm. working pressure and tested for 20 for kg per sq. cm. pressure. (Rate to include cost of gaskets, bolt, nut and any other material required for jointing and its transportation etc. excluding GST levied by GOI & GOM in all respect.					
i)	1. C. I. ARV FLFF PN 1.6 50mm Dia.	No	8920			
ii)	2. C. I. ARV FLFF PN 1.6 80mm Dia.	No	12377			
iii)	3. C. I. ARV FLFF PN 1.6 100mm Dia.	No	19901			
iv)	4. C. I. ARV FLFF PN 1.6 150mm Dia.	No	33312			
v)	5. C. I. ARV FLFF PN 1.6 200mm Dia.	No	40351			
23.	Providing and supplying at site of ductile iron /spheroidal graphite (S.G.) iron D/F double eccentric resilient seated short body butterfly valves with gear box & handwheel, without bypass arrangement. Valves in accordance with BS EN 593 of PN 10/16 rated, with body & disc of ductile iron confirming to EN 1563/IS 1865 Gr.500/7 or Gr.400/15, Body seat of intergral SG Iron/S.S. AISI 316, seal retaining ring of steel C45/S.S. 1.4436, Shaft of S.S. 1.4021, Periferial disc seal and "O" rings of WRAS approved EPDM rubber (suitable for drinking water), Internal fasteners of stainless steel A2. Body & disc coated inside & outside with electrostatically applied epoxy powder coated blue colour. (suitable for drinking water.) as per DIN 30677- 2 & GSK guidelines with a coating thickness of min. 250 microns. Valves should be 100% tight shutoff. Face to face is per IS 13095 short body. Flange drilling as per IS 1538 raised face & pressure testing at manufactures works shall be done as per IS 13095. including transportation charges excluding GST levied by GOI & GOM in all respect etc. complete.					
			PN-10	PN-16		

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
i)	200 mm.	No.	73085	88275		
ii)	250 mm.	No.	91533	114230		
iii)	300 mm.	No.	117497	150920		
iv)	350 mm.	No.	146297	178408		
v)	400 mm.	No.	174371	203598		
vi)	450 mm.	No.	225938	275976		
vii)	500 mm.	No.	246472	330811		
viii)	600 mm.	No.	358824	505483		
ix)	700 mm.	No.	596783	696246		
x)	800 mm.	No.	708679	851659		
xi)	900 mm.	No.	870307	1031935		
xii)	1000 mm	No.	1230863	1325360		
24.	Providing and supplying at site of ductile iron / spheroidal graphite (S.G.) iron D/F non-rising spindle resilient seated glandless sluice valves with handwheel & without bypass arrangement. Valves in accordance with BS 5163 of PN-10/ 16 rated, with body and bonnet of ductile iron confirming to IS 1865 Gr. 500/7 or Gr.400/15. Wedge fully encapsulated WRAS approved EPDM rubber (approved for drinking water), Wedge nut of brass, shaft of stainless steel 1.4021/1.4104, stem seals min. 3 nos. of NBR, internal fasteners of stainless steel A2. Body & Bonnet coated inside & outside with electrostatically applied epoxy powder coated blue colour (suitable for drinking water) as per DIN 30677-2 & GSK guidelines with a coating thickness of min. 250 microns. Valves should be full bore & tight shut-off. Flange drilling as per IS 1538 raised face & pressure testing at manufactures works shall be done as per IS 14846. including transportation charges excluding GST levied by GOI & GOM in all respect etc. complete. (For PN 10 & 16)					
i)	50 mm	No.	10251			
ii)	80 mm.	No.	13017			
iii)	100 mm.	No.	16127			
iv)	150 mm.	No.	22495			
v)	200 mm.	No.	35702			
vi)	250 mm.	No.	63251			
vii)	300 mm.	No.	84787			
viii)	350 mm.	No.	194052			
ix)	400 mm.	No.	234160			
x)	450 mm.	No.	319957			
xi)	500 mm.	No.	404064			
xii)	600 mm.	No.	584595			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020		Rate (in Rs.) 2020-2021	
1	2	3	4		5	
25.	Providing and supplying at site <u>ductile iron / Spheroidal Graphite (S.G.) iron single / Double chamber tamper proof air valve</u> without isolating sluice valve. Valves in accordance with BSEN 1074-4 of PN 10/16 rated, with body and bonnet of ductile iron confirming to EN 1563/IS 1865 Gr. 500/7 or Gr.400/15 floats, float guide, seat ring of stainless steel 1.4436/1.4306, seat ring gasket of WRAS approved EPDM rubber (suitable for drinking water), internal fasteners of stainless steel A2. Body & Bonnet coated inside & outside with electrostatically applied epoxy powder coated blue colour (suitable for drinking water) as per DIN 30677-2 & GSK guidelines with a coating thickness of min. 250 microns. Flange connections as per IS 1538 raised face & pressure testing at manufactures works shall be done as per IS 14845. including transportation charges excluding GST levied by GOI & GOM in all respect etc. complete. (For PN 10 & 16)					
i)	50 mm	No.	23168			
ii)	80 mm.	No.	23774			
iii)	100 mm.	No.	29245			
iv)	150 mm.	No.	40674			
v)	200 mm.	No.	42308			

SECTION – (I)XIII
MECHANICAL JOINTS/FITTINGS

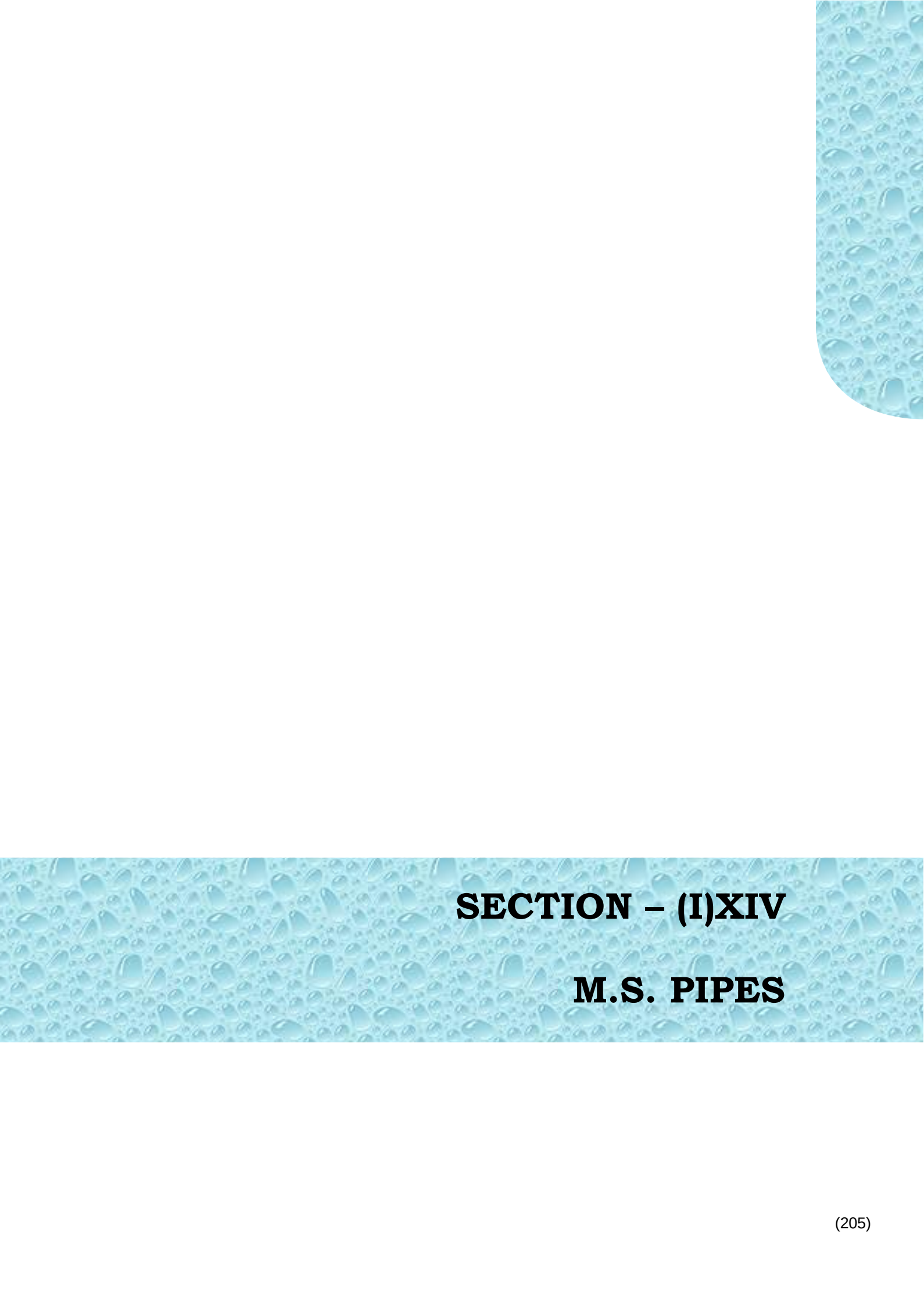
Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	<u>XIII. MECHANICAL JOINTS / FITTING</u>			
1.	<u>Supply of C. I. Mechanical Compression Flanged / Socket Tailpiece</u> (Popularly known as I TM Flanged / Socket Tailpiece) suitable for making flanged connection with the plain barrel of C. I. Spun Pipes (as per - IS - 1536 /2001) and D. I. Pipes (as per IS: 8329 / 2000).The Tailpiec to be supplied complete with sealing rubber gasket of S.B.R, C.I. Follower Glands and M.S. Nut Bolts.The whole assembly should be mechanically and hydraulically tested to the provisions as laid down in IS:1538 /1993. The rates are inclusive of cost of material, freight charges, loading, transportation and unloading at departemental store, excluding GST levied by Gol and GoM in all respect, etc. complete as directed.			
i)	80 mm dia	No.	1311	
ii)	100 mm dia	No.	1430	
III)	125 mm dia	No.	1800	
iv)	150 mm dia	No.	2574	
v)	200 mm dia	No.	3335	
vi)	250 mm dia	No.	5031	
vii)	300 mm dia	No.	5632	
viii)	350 mm dia	No.	7427	
ix)	400 mm dia	No.	9694	
x)	450 mm dia	No.	11380	
xi)	500 mm dia	No.	14299	
xii)	600 mm dia	No.	18336	
xiii)	700 mm dia	No.	25009	
xiv)	750 mm dia	No.	30390	
2.	<u>Supply of C. I. Mechanical Compression Collar Coupling</u> suitable for C. I. Spun Pipes (as per - IS - 1536 /2001) and complete with sealing rubber gasket of SBR,.C.I. follower Glands and M.S. nut Bolts.The whole assembly should be mechanically and hydraulically tested to the provisions as laid down in IS:1538 /1993.			
i)	80 mm dia	No.	826	
ii)	100 mm dia	No.	886	
III)	125 mm dia	No.	1181	
iv)	150 mm dia	No.	1593	
v)	200 mm dia	No.	1818	
vi)	250 mm dia	No.	2914	
vii)	300 mm dia	No.	3729	
viii)	350 mm dia	No.	4597	
ix)	400 mm dia	No.	7154	
x)	450 mm dia	No.	8033	
xi)	500 mm dia	No.	10977	
xii)	600 mm dia	No.	13692	
xiii)	700 mm dia	No.	17889	
xiv)	750 mm dia	No.	20990	
3.	<u>Supply of C. I. Mechanical Joint Double Socket 900 (11/4") Bends</u> as dimensionally described in Table-14 of IS-13382/ 1992 complete with sealing rubber gasket of SBR (dimensionally described in IS-12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80 mm dia	No.	2247	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
ii)	100 mm dia	No.	2607	
III)	125 mm dia	No.	3045	
iv)	150 mm dia	No.	4787	
v)	200 mm dia	No.	6353	
vi)	250 mm dia	No.	9455	
vii)	300 mm dia	No.	11507	
viii)	350 mm dia	No.	19053	
ix)	400 mm dia	No.	25968	
x)	450 mm dia	No.	33146	
xi)	500 mm dia	No.	41247	
xii)	600 mm dia	No.	58295	
xiii)	700 mm dia	No.	92016	
xiv)	750 mm dia	No.	104509	
4.	<u>Supply of CI Mechanical joint Double Socket 450 (11/8") Bends</u> as dimensionally described in Table -15 of IS - 13382/ 1992 complete with sealing rubber gasket of S.B.R. (dimensionally described in IS-12820/1989) with cast iron follower gland mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80 mm dia	No.	2087	
ii)	100 mm dia	No.	2323	
III)	125 mm dia	No.	2936	
iv)	150 mm dia	No.	4032	
v)	200 mm dia	No.	5311	
vi)	250 mm dia	No.	7791	
vii)	300 mm dia	No.	9400	
viii)	350 mm dia	No.	15681	
ix)	400 mm dia	No.	19349	
x)	450 mm dia	No.	26989	
xi)	500 mm dia	No.	30069	
xii)	600 mm dia	No.	41633	
xiii)	700 mm dia	No.	59329	
xiv)	750 mm dia	No.	78462	
5.	<u>Supply of C. I. Mechanical Joint Double Socket 22.50 (1/6") Bends</u> as dimensionally described in Table -16 of IS-13382/ 1992 complete with sealing rubber gasket of SBR (dimensionally described in IS-12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80 mm dia.	No.	2003	
ii)	100 mm dia.	No.	2230	
iii)	125 mm dia.	No.	2677	
iv)	150 mm dia.	No.	3785	
v)	200 mm dia.	No.	4747	
vi)	250 mm dia.	No.	7179	
vii)	300 mm dia.	No.	8664	
viii)	350 mm dia.	No.	13677	
ix)	400 mm dia.	No.	17534	
x)	450 mm dia.	No.	22182	
xi)	500 mm dia.	No.	25851	
xii)	600 mm dia.	No.	34252	
xiii)	700 mm dia.	No.	51524	
xiv)	750 mm dia.	No.	56739	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
6.	<u>Supply of CI Mechanical joint Double Socket 11.250 (1/32") Bends</u> as dimensionally described in Table -17 of IS - 13382/1992 complete with sealing rubber gasket of S.B.R.(dimensionally described in IS-12820 /1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80 mm dia.	No.	1983	
ii)	100 mm dia.	No.	2178	
iii)	125 mm dia.	No.	2366	
iv)	150 mm dia.	No.	3700	
v)	200 mm dia.	No.	4556	
vi)	250 mm dia.	No.	6735	
vii)	300 mm dia.	No.	7462	
viii)	350 mm dia.	No.	11777	
ix)	400 mm dia.	No.	15951	
x)	450 mm dia.	No.	20134	
xi)	500 mm dia.	No.	21947	
xii)	600 mm dia.	No.	30086	
xiii)	700 mm dia.	No.	40559	
xiv)	750 mm dia.	No.	45249	
7	<u>Supply of CI Mechanical joint All Socket Tees</u> as dimensionally described in Table -18 of IS - 13382/1992 complete with sealing rubber gasket of S.B.R. (dimensionally described in IS-12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
i)	80x80x80 mm dia	No.	3039	
ii)	100x100x80 mm dia	No.	3267	
iii)	100x100x100 mm dia	No.	3622	
iv)	150x150x80 mm dia	No.	5074	
v)	150x150x100 mm dia	No.	5146	
vi)	150x150x150 mm dia	No.	6382	
vii)	200x200x80 mm dia	No.	6120	
viii)	200x200x100 mm dia	No.	6188	
ix)	200x200x150 mm dia	No.	7370	
x)	200x200x200 mm dia	No.	8109	
xi)	250x250x80 mm dia	No.	8619	
xii)	250x250x100 mm dia	No.	8809	
xiii)	250x250x150 mm dia	No.	10513	
xiv)	250x250x200 mm dia	No.	11108	
xv)	250x250x250 mm dia	No.	12459	
xvi)	300x300x80 mm dia	No.	9451	
xvii)	300x300x100 mm dia	No.	9664	
xviii)	300x300x150 mm dia	No.	12393	
xix)	300x300x200 mm dia	No.	12803	
xx)	300x300x250 mm dia	No.	13555	
xxi)	300x300x300 mm dia	No.	14960	
8.	<u>Supply of CI Mechanical joint Double Socket with Flanged Tees</u> dimensionally described in Table -19 of IS - 13382/1992 complete with sealing rubber gasket of S.B.R.(dimensionally described in IS-12820/ 1989) with cast iron follower gland and mild steel nut bolts coated or galvanised coated or otherwise protected from rusting and suitable for C. I. pipes.			
	80x80x80 mm dia	No.	2976	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	100x100x80 mm dia	No.	3266	
	100x100x100 mm dia	No.	3455	
	150x150x80 mm dia	No.	4928	
	150x150x100 mm dia	No.	5050	
	150x150x150 mm dia	No.	6015	
	200x200x80 mm dia	No.	5784	
	200x200x100 mm dia	No.	6170	
	200x200x150 mm dia	No.	7106	
	200x200x200 mm dia	No.	8147	
	250x250x80 mm dia	No.	8169	
	250x250x100 mm dia	No.	8597	
	250x250x150 mm dia	No.	10200	
	250x250x200 mm dia	No.	10673	
	250x250x250 mm dia	No.	11052	
	300x300x80 mm dia	No.	9590	
	300x300x100 mm dia	No.	9778	
	300x300x150 mm dia	No.	11289	
	300x300x200 mm dia	No.	11385	
	300x300x250 mm dia	No.	12564	
	300x300x300 mm dia	No.	15398	
	350x350x80 mm dia	No.	13413	
	350x350x100 mm dia	No.	14265	
	350x350x150 mm dia	No.	15348	
	350x350x200 mm dia	No.	17885	
	350x350x300 mm dia	No.	18323	
	350x350x350 mm dia	No.	20968	
	400x400x80 mm dia	No.	17534	
	400x400x100 mm dia	No.	18587	
	400x400x150 mm dia	No.	20694	
	400x400x200 mm dia	No.	21111	
	400x400x300 mm dia	No.	25442	
	400x400x400 mm dia	No.	29130	
	450x450x80 mm dia	No.	20913	
	450x450x100 mm dia	No.	21969	
	450x450x200 mm dia	No.	25764	
	450x450x300 mm dia	No.	32511	
	450x450x350 mm dia	No.	34304	
	450x450x450 mm dia	No.	37261	
	500x500x100 mm dia	No.	23529	
	500x500x250 mm dia	No.	32175	
	500x500x300 mm dia	No.	33333	
	500x500x400 mm dia	No.	40191	
	500x500x500 mm dia	No.	48523	
	600x600x100 mm dia	No.	33626	
	600x600x300 mm dia	No.	46175	
	600x600x400 mm dia	No.	52605	
	600x600x500 mm dia	No.	56927	
	600x600x600 mm dia	No.	69896	
	700x700x100 mm dia	No.	44565	
	700x700x200 mm dia	No.	51630	
	700x700x350 mm dia	No.	62385	
	700x700x400 mm dia	No.	67024	
	750x750x150 mm dia	No.	53153	
	750x750x250 mm dia	No.	60958	
	750x750x750 mm dia	No.	116950	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
9.	<u>Supply of CI Mechanical joint Double Socket Reducers</u> as described in Table -21 of IS - 13382/1992 complete with sealing rubber gasket of SBR(dimensionally described in IS-12820/ 1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C. I. pipes.			
	100x80 mm dia	No.	2108	
	150x80 mm dia	No.	3317	
	150x100 mm dia	No.	3511	
	200x100 mm dia	No.	4041	
	200x150 mm dia	No.	4420	
	250x150 mm dia	No.	5891	
	250x200 mm dia	No.	6038	
	300x150 mm dia	No.	7427	
	300x200 mm dia	No.	7439	
	300x250 mm dia	No.	7566	
	350x200 mm dia	No.	10692	
	350x250 mm dia	No.	10726	
	350x300 mm dia	No.	10600	
	400x250 mm dia	No.	16149	
	400x300 mm dia	No.	14307	
	400x350 mm dia	No.	14402	
	450x300 mm dia	No.	17884	
	450x350 mm dia	No.	17874	
	450x400 mm dia	No.	17650	
	500x350 mm dia	No.	21500	
	500x400 mm dia	No.	21172	
	500x450 mm dia	No.	20636	
	600x400 mm dia	No.	31217	
	600x450 mm dia	No.	30382	
	600x500 mm dia	No.	28526	
	700x500 mm dia	No.	42851	
	700x600 mm dia	No.	38889	
	750x600 mm dia	No.	46189	
	750x700 mm dia	No.	42694	
	800x450 mm dia	No.	63544	
	800x700 mm dia	No.	54549	

The page features a light blue background with a pattern of water droplets. A vertical strip of this pattern is on the right side, and a horizontal band is at the bottom. The text is centered in the bottom band.

SECTION – (I)XIV

M.S. PIPES

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
	<u>XIV. M. S. PIPES</u>			
1.	<u>Manufacturing, providing and supplying spirally welded / ERW/ SAW / fabricated M. S. pipes</u> (Commercial Quality) including procurements of plates, gas cutting to required size rolling, tack welding assembling in suitable lengths to form pipes, welding on automatic welding machine and forming 'V' edge on both ends of pipes including railway freight, insurance, unloading from railway wagon, loading into truck, transport to stores, unloading, stacking excluding GST levied by GOI & GOM in all respect, etc, complete as per IS - 3589 and IS-5504 as applicable as per specifications (No negative tolerance in thickness is permissible).			
a)	<u>Dia of Pipe : 219.10 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	4.8 mm	RMT	1577	
ii)	5.6 mm	RMT	1832	
iii)	6.4 mm	RMT	2087	
iv)	7.0 mm	RMT	2275	
v)	7.9 mm	RMT	2557	
vi)	8.2 mm	RMT	2651	
vii)	8.7 mm	RMT	2806	
viii)	9.5 mm	RMT	3052	
b)	<u>Dia of Pipe : 273.10 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	4.8 mm	RMT	1974	
ii)	5.6 mm	RMT	2296	
iii)	6.4 mm	RMT	2616	
iv)	7.2 mm	RMT	2934	
v)	7.8 mm	RMT	3172	
vi)	8.7 mm.	RMT	3526	
vii)	9.3 mm.	RMT	3760	
c)	<u>Dia of Pipe : 323.90 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm	RMT	2732	
ii)	6.4 mm	RMT	3114	
iii)	7.1 mm	RMT	3446	
iv)	7.9 mm	RMT	3826	
v)	8.4 mm	RMT	4062	
vi)	8.7 mm.	RMT	4202	
vii)	9.5 mm.	RMT	4578	
d)	<u>Dia of Pipe : 355.7 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	3004	
ii)	6.4 mm.	RMT	3426	
iii)	7.1 mm.	RMT	3793	
iv)	7.9 mm.	RMT	4210	
v)	8.7 mm.	RMT	4625	
vi)	9.5 mm.	RMT	5040	
e)	<u>Dia of Pipe : 406.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	3436	
ii)	6.4 mm.	RMT	3919	
iii)	7.1 mm.	RMT	4340	
iv)	7.9 mm.	RMT	4820	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
v)	8.7 mm.	RMT	5297	
vi)	9.5 mm.	RMT	5773	
vii)	10.00 mm.	RMT	6070	
f)	<u>Dia of Pipe : 457.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i) ii)	5.6 mm.	RMT	3875	
	6.4 mm.	RMT	4420	
iii)	7.1 mm.	RMT	4896	
iv)	7.9 mm.	RMT	5437	
v)	8.7 mm.	RMT	5977	
vi)	9.5 mm.	RMT	6516	
vii)	10.00 mm.	RMT	6851	
g)	<u>Dia of Pipe : 508.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	4313	
ii)	6.4 mm.	RMT	4920	
iii)	7.1 mm.	RMT	5450	
iv)	7.9 mm.	RMT	6055	
v)	8.7 mm.	RMT	6658	
vi)	9.5 mm.	RMT	7259	
vii)	10.00 mm.	RMT	7633	
h)	<u>Dia of Pipe : 559.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	4750	
ii)	6.4 mm.	RMT	5420	
iii)	7.1 mm.	RMT	6006	
iv)	7.9 mm.	RMT	6673	
v)	8.7 mm.	RMT	7338	
vi)	9.5 mm.	RMT	8002	
vii)	10.00 mm.	RMT	8414	
i)	<u>Dia of Pipe : 610.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm	RMT	5188	
ii)	6.4 mm.	RMT	5921	
iii)	7.1 mm.	RMT	6560	
iv)	7.9 mm.	RMT	7290	
v)	8.7 mm.	RMT	8017	
vi)	9.5 mm.	RMT	8743	
vii)	10.00 mm.	RMT	9196	
viii)	12.00 mm	RMT	10998	
j)	<u>Dia of Pipe : 660.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm	RMT	5617	
ii)	6.4 mm.	RMT	6410	
iii)	7.1 mm.	RMT	7105	
iv)	7.9 mm.	RMT	7895	
v)	8.7 mm.	RMT	8684	
vi)	9.5 mm.	RMT	9472	
vii)	10.00 mm.	RMT	9962	
k)	<u>Dia of Pipe : 711.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	6054	
ii)	6.4 mm.	RMT	6911	
iii)	7.1 mm.	RMT	7660	
iv)	7.9 mm.	RMT	8513	
v)	8.7 mm.	RMT	9364	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
vi)	9.5 mm.	RMT	10214	
vii)	10.00 mm.	RMT	10744	
viii)	12.00 mm	RMT	12856	
l)	<u>Dia of Pipe : 762.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	6492	
ii)	6.4 mm.	RMT	7412	
iii)	7.1 mm.	RMT	8215	
iv)	7.9 mm.	RMT	9130	
v)	8.7 mm.	RMT	10044	
vi)	9.5 mm.	RMT	10957	
vii)	10.00 mm.	RMT	11526	
m)	<u>Dia of Pipe : 813.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	6930	
ii)	6.4 mm.	RMT	7912	
iii)	7.1 mm.	RMT	8770	
iv)	7.9 mm.	RMT	9748	
v)	8.7 mm.	RMT	10724	
vi)	9.5 mm.	RMT	11699	
vii)	10.00 mm.	RMT	12307	
viii)	12.00 mm	RMT	14731	
n)	<u>Dia of Pipe : 864.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	7367	
ii)	6.4 mm.	RMT	8412	
iii)	7.1 mm.	RMT	9325	
iv)	7.9 mm.	RMT	10366	
v)	8.7 mm.	RMT	11404	
vi)	9.5 mm.	RMT	12440	
vii)	10.00 mm.	RMT	13088	
o)	<u>Dia of Pipe : 914.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	7796	
ii)	6.4 mm.	RMT	8902	
iii)	7.1 mm.	RMT	9868	
iv)	7.9 mm.	RMT	10970	
v)	8.7 mm.	RMT	12071	
vi)	9.5 mm.	RMT	13170	
vii)	10.00 mm.	RMT	13854	
p)	<u>Dia of Pipe : 965.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	8233	
ii)	6.4 mm.	RMT	9403	
iii)	7.1 mm.	RMT	10423	
iv)	7.9 mm.	RMT	11468	
v)	8.7 mm.	RMT	12751	
vi)	9.5 mm.	RMT	13912	
vii)	10.00 mm.	RMT	14636	
q)	<u>Dia of Pipe : 1016.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i) ii)	5.6 mm.	RMT	8731	
	6.4 mm.	RMT	9904	
iii)	7.1 mm.	RMT	10978	
iv)	7.9 mm.	RMT	12206	
v)	8.7 mm.	RMT	13432	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
vi)	9.5 mm.	RMT	14654	
vii)	10.00 mm.	RMT	15418	
viii)	12.00 mm	RMT	18466	
r)	<u>Dia of Pipe : 1067.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i) ii)	5.6 mm.	RMT	9110	
	6.4 mm.	RMT	10403	
iii)	7.1 mm.	RMT	11533	
iv)	7.9 mm.	RMT	12823	
v)	8.7 mm.	RMT	14111	
vi)	9.5 mm.	RMT	15396	
vii)	10.00 mm.	RMT	16199	
s)	<u>Dia of Pipe : 1118.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	9547	
ii)	6.4 mm.	RMT	10903	
iii)	7.1 mm.	RMT	12088	
iv)	7.9 mm.	RMT	13441	
v)	8.7 mm.	RMT	14791	
vi)	9.5 mm.	RMT	16139	
vii)	10.00 mm.	RMT	16981	
t)	<u>Dia of Pipe : 1168.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	5.6 mm.	RMT	9977	
ii)	6.4 mm.	RMT	11394	
iii)	7.1 mm.	RMT	12632	
iv)	7.9 mm.	RMT	14046	
v)	8.7 mm.	RMT	15458	
vi)	9.5 mm.	RMT	16867	
vii)	10.00 mm.	RMT	17748	
u)	<u>Dia of Pipe : 1219.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	6.4 mm.	RMT	11894	
ii)	7.1 mm.	RMT	13187	
iii)	7.9 mm.	RMT	14663	
iv)	8.7 mm.	RMT	16138	
v)	9.5 mm.	RMT	17610	
vi)	10.00 mm.	RMT	18529	
vii)	12.00 mm.	RMT	22198	
v)	<u>Dia of Pipe : 1296.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	9.5 mm.	RMT	18731	
ii)	9.98 mm.	RMT	19669	
iii)	10.00 mm.	RMT	19710	
w)	<u>Dia of Pipe : 1321.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	6.4 mm.	RMT	12894	
ii)	7.1 mm.	RMT	14297	
iii)	7.9 mm.	RMT	15899	
iv)	8.7 mm.	RMT	17498	
v)	9.5 mm.	RMT	19094	
vi)	10.00 mm.	RMT	20093	
x)	<u>Dia of Pipe : 1422.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.1 mm.	RMT	15396	
ii)	7.9 mm.	RMT	17122	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
iii)	8.7 mm.	RMT	18845	
iv)	9.5 mm.	RMT	20566	
v)	10.00 mm.	RMT	21641	
vi)	12.00 mm.	RMT	25932	
y)	<u>Dia of Pipe : 1473.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	9.5 mm.	RMT	21308	
ii)	9.98 mm.	RMT	22378	
z)	<u>Dia of Pipe : 1524.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.1 mm.	RMT	16506	
ii)	7.9 mm.	RMT	18356	
iii)	8.7 mm.	RMT	20204	
iv)	9.5 mm.	RMT	22051	
v)	10.00 mm.	RMT	23204	
vi)	11.90 mm.	RMT	27577	
vii)	12.00 mm.	RMT	27808	
aa)	<u>Dia of Pipe : 1550.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	10.00 mm.	RMT	23602	
ii)	11.00 mm.	RMT	25945	
ab)	<u>Dia of Pipe : 1576.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	9.5 mm.	RMT	22808	
ii)	10.00 mm.	RMT	24001	
ac)	<u>Dia of Pipe : 1626.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.1 mm.	RMT	17616	
ii)	7.9 mm.	RMT	19592	
iii)	8.7 mm.	RMT	21565	
iv)	9.5 mm.	RMT	23536	
v)	10.00 mm.	RMT	24767	
vi)	12.00 mm.	RMT	29684	
ad)	<u>Dia of Pipe : 1650.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	19883	
ii)	8.7 mm.	RMT	21884	
iii)	9.5 mm.	RMT	23885	
iv)	10.00 mm.	RMT	25134	
v)	12.00 mm.	RMT	30125	
ae)	<u>Dia of Pipe : 1700.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	20486	
ii)	8.7 mm.	RMT	22550	
iii)	9.5 mm.	RMT	24613	
iv)	10.00 mm.	RMT	25901	
v)	12.00 mm.	RMT	31044	
af)	<u>Dia of Pipe : 1750.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	21092	
ii)	8.7 mm.	RMT	23218	
iii)	9.5 mm.	RMT	25342	
iv)	10.00 mm.	RMT	26668	
v)	12.00 mm.	RMT	31964	
ag)	<u>Dia of Pipe : 1800.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
i)	7.9 mm.	RMT	21698	
ii)	8.7 mm.	RMT	23885	
iii)	9.5 mm.	RMT	26070	
iv)	10.00 mm.	RMT	27433	
v)	12.00 mm.	RMT	32884	
ah)	<u>Dia of Pipe : 1850.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	0	
ii)	8.7 mm.	RMT	24551	
iii)	9.5 mm.	RMT	26797	
iv)	10.00 mm.	RMT	28200	
v)	12.00 mm.	RMT	33803	
ai)	<u>Dia of Pipe : 1900.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i) ii)	7.9 mm.	RMT	22909	
	8.7 mm.	RMT	25218	
iii)	9.5 mm.	RMT	27526	
iv)	10.00 mm.	RMT	28967	
v)	12.00 mm.	RMT	34723	
aj)	<u>Dia of Pipe : 1950.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i) ii)	7.9 mm.	RMT	23514	
	8.7 mm.	RMT	25884	
iii)	9.5 mm.	RMT	28253	
iv)	10.00 mm.	RMT	29732	
v)	12.00 mm.	RMT	35642	
ak)	<u>Dia of Pipe : 2000.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i) ii)	7.9 mm.	RMT	24120	
	8.7 mm.	RMT	26551	
iii)	9.5 mm.	RMT	28981	
iv)	10.00 mm.	RMT	30499	
v)	12.00 mm.	RMT	36563	
al)	<u>Dia of Pipe : 2050.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i) ii)	7.9 mm.	RMT	24725	
	8.7 mm.	RMT	27218	
iii)	9.5 mm.	RMT	29708	
iv)	10.00 mm.	RMT	31265	
v)	12.00 mm.	RMT	37482	
am)	<u>Dia of Pipe : 2100.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i) ii)	7.9 mm.	RMT	25331	
	8.7 mm.	RMT	27884	
iii)	9.5 mm.	RMT	30762	
iv)	10.00 mm.	RMT	32032	
v)	12.00 mm.	RMT	38401	
an)	<u>Dia of Pipe : 2150.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	25937	
ii)	8.7 mm.	RMT	28552	
iii)	9.5 mm.	RMT	31165	
iv)	10.00 mm.	RMT	32798	
v)	12.00 mm.	RMT	39320	
ao)	<u>Dia of Pipe : 2200.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
i)	7.9 mm.	RMT	26540	
ii)	8.7 mm.	RMT	29218	
iii)	9.5 mm.	RMT	31894	
iv)	10.00 mm.	RMT	33564	
v)	12.00 mm.	RMT	40241	
ap)	<u>Dia of Pipe : 2250.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	27146	
ii)	8.7 mm.	RMT	29885	
iii)	9.5 mm.	RMT	32621	
iv)	10.00 mm.	RMT	34331	
v)	12.00 mm.	RMT	41160	
aq)	<u>Dia of Pipe : 2300.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	27752	
ii)	8.7 mm.	RMT	30552	
iii)	9.5 mm.	RMT	33349	
iv)	10.00 mm.	RMT	35096	
v)	12.00 mm.	RMT	42079	
ar)	<u>Dia of Pipe : 2350.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	28357	
ii)	8.7 mm.	RMT	31218	
iii)	9.5 mm.	RMT	34076	
iv)	10.00 mm.	RMT	35863	
v)	12.00 mm.	RMT	42998	
as)	<u>Dia of Pipe : 2400.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	28963	
ii)	8.7 mm.	RMT	31885	
iii)	9.5 mm.	RMT	34805	
iv)	10.00 mm.	RMT	36630	
v)	12.00 mm.	RMT	43919	
at)	<u>Dia of Pipe : 2450.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	29568	
ii)	8.7 mm.	RMT	32551	
iii)	9.5 mm.	RMT	35534	
iv)	10.00 mm.	RMT	37396	
v)	12.00 mm.	RMT	44838	
au)	<u>Dia of Pipe : 2500.00 mm (O. D.)</u> <u>Thickness of pipe :</u>			
i)	7.9 mm.	RMT	30173	
ii)	8.7 mm.	RMT	33218	
iii)	9.5 mm.	RMT	36262	
iv)	10.00 mm.	RMT	38162	
v)	12.00 mm.	RMT	45757	
vi)	16.00 mm.	RMT	60913	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
2.	<u>Manufacturing, providing and supplying spirally welded / ERW/ SAW / fabricated M. S. pipes</u> (Commercial Quality) including procurements of plates, gas cutting to required size rolling, tack welding assembling in suitable lengths to form pipes, welding on automatic welding machine and forming 'V' edge on both ends of pipes including railway freight, insurance, unloading from railway wagon, loading into truck, transport to stores, unloading, stacking, excluding GST levied by GOI & GOM in all respect etc. complete as per IS - 3589 and IS-5504 as applicable as per specifications (No negative tolerance in thickness is permissible).			
a)	<u>Dia of Pipe : 200.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
	i) 5.00 mm.	RMT	1571	
	ii) 6.00 mm.	RMT	1894	
	iii) 7.00 mm.	RMT	2221	
	iv) 8.00 mm.	RMT	2550	
	v) 9.00 mm.	RMT	2882	
	vi) 10.00mm.	RMT	3218	
b)	<u>Dia of Pipe : 250.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
	i) 5.00 mm.	RMT	1955	
	ii) 6.00 mm.	RMT	2354	
	iii) 7.00 mm.	RMT	2758	
	iv) 8.00 mm.	RMT	3163	
	v) 9.00 mm.	RMT	3574	
	vi) 10.00mm.	RMT	3985	
c)	<u>Dia of Pipe : 300.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
	i) 5.00 mm.	RMT	2336	
	ii) 6.00 mm.	RMT	2814	
	iii) 7.00 mm.	RMT	3293	
	iv) 8.00 mm.	RMT	3776	
	v) 9.00 mm.	RMT	4262	
	vi) 10.00mm.	RMT	4752	
d)	<u>Dia of Pipe : 350.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
	i) 5.00 mm.	RMT	2720	
	ii) 6.00 mm.	RMT	3274	
	iii) 7.00 mm.	RMT	3830	
	iv) 8.00 mm.	RMT	4390	
	v) 9.00 mm.	RMT	4952	
	vi) 10.00mm.	RMT	5518	
e)	<u>Dia of Pipe : 400.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>		0	
	i) 5.00 mm.	RMT	3103	
	ii) 6.00 mm.	RMT	3733	
	iii) 7.00 mm.	RMT	4367	
	iv) 8.00 mm.	RMT	5002	
	v) 9.00 mm.	RMT	5642	
	vi) 10.00mm.	RMT	6284	
f)	<u>Dia of Pipe : 450.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
	i) 5.00 mm.	RMT	3487	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
ii)	6.00 mm.	RMT	4193	
iii)	7.00 mm.	RMT	4903	
iv)	8.00 mm.	RMT	5616	
v)	9.00 mm.	RMT	6331	
vi)	10.00mm.	RMT	7050	
g)	<u>Dia of Pipe : 500.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	3870	
ii)	6.00 mm.	RMT	4654	
iii)	7.00 mm.	RMT	5438	
iv)	8.00 mm.	RMT	6229	
v)	9.00 mm.	RMT	7021	
vi)	10.00mm.	RMT	7817	
h)	<u>Dia of Pipe : 550.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	4253	
ii)	6.00 mm.	RMT	5113	
iii)	7.00 mm.	RMT	5976	
iv)	8.00 mm.	RMT	6841	
v)	9.00 mm.	RMT	7711	
vi)	10.00mm.	RMT	8582	
i)	<u>Dia of Pipe : 600.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	4636	
ii)	6.00 mm.	RMT	5572	
iii)	7.00 mm.	RMT	6512	
iv)	8.00 mm.	RMT	7454	
v)	9.00 mm.	RMT	8400	
vi)	10.00mm.	RMT	9348	
vii)	12.00mm.	RMT	11255	
j)	<u>Dia of Pipe : 650.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	5020	
ii)	6.00 mm.	RMT	6032	
iii)	7.00 mm.	RMT	7048	
iv)	8.00 mm.	RMT	8068	
v)	9.00 mm.	RMT	9090	
vi)	10.00mm.	RMT	10115	
vii)	12.00mm.	RMT	12175	
k)	<u>Dia of Pipe : 700.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	5402	
ii)	6.00 mm.	RMT	6492	
iii)	7.00 mm.	RMT	7585	
iv)	8.00 mm.	RMT	8681	
v)	9.00 mm.	RMT	9779	
vi)	10.00mm.	RMT	10882	
vii)	12.00mm.	RMT	13096	
l)	<u>Dia of Pipe : 750.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	5786	
ii)	6.00 mm.	RMT	6952	
iii)	7.00 mm.	RMT	8122	
iv)	8.00 mm.	RMT	9294	
v)	9.00 mm.	RMT	10469	
vi)	10.00mm.	RMT	11647	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
vii)	12.00mm.	RMT	14014	
m)	<u>Dia of Pipe : 800.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	6168	
ii)	6.00 mm.	RMT	7412	
iii)	7.00 mm.	RMT	8658	
iv)	8.00 mm.	RMT	9907	
v)	9.00 mm.	RMT	11159	
vi)	10.00mm.	RMT	12414	
vii)	12.00mm.	RMT	14934	
n)	<u>Dia of Pipe : 850.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	6552	
ii)	6.00 mm.	RMT	7871	
iii)	7.00 mm.	RMT	9193	
iv)	8.00 mm.	RMT	10519	
v)	9.00 mm.	RMT	11848	
vi)	10.00mm.	RMT	13180	
vii)	12.00mm.	RMT	15853	
o)	<u>Dia of Pipe : 900.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	6935	
ii)	6.00 mm.	RMT	8332	
iii)	7.00 mm.	RMT	9731	
iv)	8.00 mm.	RMT	11132	
v)	9.00 mm.	RMT	12538	
vi)	10.00mm.	RMT	13946	
vii)	12.00mm.	RMT	16774	
p)	<u>Dia of Pipe : 950.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	7319	
ii)	6.00 mm.	RMT	8791	
iii)	7.00 mm.	RMT	10267	
iv)	8.00 mm.	RMT	11746	
v)	9.00 mm.	RMT	13229	
vi)	10.00mm.	RMT	14713	
vii)	12.00mm.	RMT	17692	
q)	<u>Dia of Pipe : 1000.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	7702	
ii)	6.00 mm.	RMT	9251	
iii)	7.00 mm.	RMT	10804	
iv)	8.00 mm.	RMT	12360	
v)	9.00 mm.	RMT	13918	
vi)	10.00mm.	RMT	15479	
vii)	12.00mm.	RMT	18612	
r)	<u>Dia of Pipe : 1050.00 mm (I. D.)</u>			
	<u>Thickness of pipe :</u>			
i)	5.00 mm.	RMT	8084	
ii)	6.00 mm.	RMT	9710	
iii)	7.00 mm.	RMT	11339	
iv)	8.00 mm.	RMT	12972	
v)	9.00 mm.	RMT	14608	
vi)	10.00mm.	RMT	16246	
vii)	12.00 mm.	RMT	19531	
s)	<u>Dia of Pipe : 1100.00 mm (I. D.)</u>			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
	Thickness of pipe :			
i)	5.00 mm.	RMT	8467	
ii)	6.00 mm.	RMT	10170	
iii)	7.00 mm.	RMT	11876	
iv)	8.00 mm.	RMT	13585	
v)	9.00 mm.	RMT	15298	
vi)	10.00mm.	RMT	17011	
vii)	12.00 mm.	RMT	20452	
t)	<u>Dia of Pipe : 1150.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	5.00 mm.	RMT	8851	
ii)	6.00 mm.	RMT	10631	
iii)	7.00 mm.	RMT	12413	
iv)	8.00 mm.	RMT	14198	
v)	9.00 mm.	RMT	15986	
vi)	10.00mm.	RMT	17778	
vii)	12.00 mm.	RMT	21371	
u)	<u>Dia of Pipe : 1200.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	5.00 mm.	RMT	9234	
ii)	6.00 mm.	RMT	11090	
iii)	7.00 mm.	RMT	12949	
iv)	8.00 mm.	RMT	14810	
v)	9.00 mm.	RMT	16676	
vi)	10.00mm.	RMT	18545	
vii)	12.00 mm.	RMT	22290	
v)	<u>Dia of Pipe : 1250.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	6.00 mm.	RMT	11550	
ii)	7.00 mm.	RMT	13486	
iii)	8.00 mm.	RMT	15425	
iv)	9.00 mm.	RMT	17366	
v)	10.00mm.	RMT	19310	
vi)	12.00 mm.	RMT	23210	
w)	<u>Dia of Pipe : 1300.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	6.00 mm.	RMT	12010	
ii)	7.00 mm.	RMT	14022	
iii)	8.00 mm.	RMT	16038	
iv)	9.00 mm.	RMT	18055	
v)	10.00mm.	RMT	20077	
vi)	12.00 mm.	RMT	24130	
x)	<u>Dia of Pipe : 1350.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	7.00 mm.	RMT	14558	
ii)	8.00 mm.	RMT	16650	
iii)	9.00 mm.	RMT	18745	
iv)	10.00mm.	RMT	20844	
v)	12.00 mm.	RMT	25050	
y)	<u>Dia of Pipe : 1400.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	7.00 mm.	RMT	15094	
ii)	8.00 mm.	RMT	17263	
iii)	9.00 mm.	RMT	19435	
iv)	10.00mm.	RMT	21610	
v)	12.00 mm.	RMT	25968	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
z)	<u>Dia of Pipe :1450.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	7.00 mm.	RMT	15631	
ii)	8.00 mm.	RMT	17876	
iii)	9.00 mm.	RMT	20124	
iv)	10.00mm.	RMT	22376	
v)	12.00 mm.	RMT	26888	
aa)	<u>Dia of Pipe :1500.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	7.00 mm.	RMT	16168	
ii)	8.00 mm.	RMT	18488	
iii)	9.00 mm.	RMT	20814	
iv)	10.00mm.	RMT	23142	
v)	12.00 mm.	RMT	27808	
ab)	<u>Dia of Pipe :1550.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	7.00 mm.	RMT	16704	
ii)	8.00 mm.	RMT	19103	
iii)	9.00 mm.	RMT	21504	
iv)	10.00mm.	RMT	23909	
v)	12.00 mm.	RMT	28728	
ac)	<u>Dia of Pipe :1600.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	7.00 mm.	RMT	17240	
ii)	8.00 mm.	RMT	19716	
iii)	9.00 mm.	RMT	22194	
iv)	10.00mm.	RMT	24676	
v)	12.00 mm.	RMT	29646	
ad)	<u>Dia of Pipe :1650.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	8.00 mm.	RMT	20329	
ii)	9.00 mm.	RMT	22884	
iii)	10.00mm.	RMT	25441	
iv)	12.00 mm.	RMT	30566	
ae)	<u>Dia of Pipe : 1700.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	8.00 mm.	RMT	20941	
ii)	9.00 mm.	RMT	23574	
iii)	10.00 mm.	RMT	26208	
iv)	12.00mm.	RMT	31486	
af)	<u>Dia of Pipe : 1750.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	8.00 mm.	RMT	21554	
ii)	9.00 mm.	RMT	24263	
iii)	10.00 mm.	RMT	26974	
iv)	12.00mm.	RMT	32406	
ag)	<u>Dia of Pipe : 1800.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	8.00 mm.	RMT	22168	
ii)	9.00 mm.	RMT	24953	
iii)	10.00 mm.	RMT	27740	
iv)	12.00mm.	RMT	33325	
ah)	<u>Dia of Pipe : 1850.00 mm (I. D.)</u>			
	Thickness of pipe :			
i)	8.00 mm.	RMT	22781	
ii)	9.00 mm.	RMT	25643	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
iii)	10.00 mm.	RMT	28507	
iv)	12.00mm.	RMT	34244	
ai)	Dia of Pipe : 1900.00 mm (I. D.) Thickness of pipe :			
	Thickness of pipe :			
i)	8.00 mm.	RMT	23394	
ii)	9.00 mm.	RMT	26332	
iii)	10.00 mm.	RMT	29273	
iv)	12.00mm.	RMT	35165	
aj)	Dia of Pipe : 1950.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	24007	
ii)	9.00 mm.	RMT	27022	
iii)	10.00 mm.	RMT	30040	
iv)	12.00mm.	RMT	36084	
ak)	Dia of Pipe : 2000.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	24619	
ii)	9.00 mm.	RMT	27712	
iii)	10.00 mm.	RMT	30806	
iv)	12.00mm.	RMT	37004	
v)	16.00 mm.	RMT	49436	
al)	Dia of Pipe : 2050.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	25232	
ii)	9.00 mm.	RMT	28400	
iii)	10.00 mm.	RMT	31572	
iv)	12.00mm.	RMT	37922	
v)	16.00 mm.	RMT	50663	
am)	Dia of Pipe : 2100.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	25847	
ii)	9.00 mm.	RMT	29090	
iii)	10.00 mm.	RMT	32339	
iv)	12.00mm.	RMT	38843	
v)	16.00 mm.	RMT	51888	
an)	Dia of Pipe : 2150.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	26459	
ii)	9.00 mm.	RMT	29779	
iii)	10.00 mm.	RMT	33104	
iv)	12.00mm.	RMT	39762	
v)	16.00 mm.	RMT	53114	
ao)	Dia of Pipe : 2200.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	27072	
ii)	9.00 mm.	RMT	30469	
iii)	10.00 mm.	RMT	33871	
iv)	12.00mm.	RMT	40682	
v)	16.00 mm.	RMT	54341	
ap)	Dia of Pipe : 2250.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	27685	
ii)	9.00 mm.	RMT	31160	
iii)	10.00 mm.	RMT	34638	
iv)	12.00mm.	RMT	41600	
v)	16.00 mm.	RMT	55566	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	5	
aq)	Dia of Pipe : 2300.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	28298	
ii)	9.00 mm.	RMT	31849	
iii)	10.00 mm.	RMT	35404	
iv)	12.00mm.	RMT	42521	
v)	16.00 mm.	RMT	56792	
ar)	Dia of Pipe : 2350.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	28910	
ii)	9.00 mm.	RMT	32539	
iii)	10.00 mm.	RMT	36170	
iv)	12.00mm.	RMT	43440	
v)	16.00 mm.	RMT	58019	
as)	Dia of Pipe : 2400.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	29525	
ii)	9.00 mm.	RMT	33229	
iii)	10.00 mm.	RMT	36936	
iv)	12.00mm.	RMT	44360	
v)	16.00 mm.	RMT	59244	
at)	Dia of Pipe : 2450.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	30138	
ii)	9.00 mm.	RMT	33918	
iii)	10.00 mm.	RMT	37702	
iv)	12.00mm.	RMT	45278	
v)	16.00 mm.	RMT	60472	
au)	Dia of Pipe : 2500.00 mm (I. D.)			
	Thickness of pipe :			
i)	8.00 mm.	RMT	30750	
ii)	9.00 mm.	RMT	34608	
iii)	10.00 mm.	RMT	38468	
iv)	12.00mm.	RMT	46199	
v)	16.00 mm.	RMT	61697	

SECTION – (I)XV

FABRICATION OF
M.S. PIPES & SPECIALS

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	<u>XV. FABRICATION OF M.S. PIPES & SPECIALS</u>			
1.	Providing, fabricating and fixing <u>expansion joints</u> for pipelines as per the drawing. The rate to include machining the strakes and steel ring as shown in the drawing and welding on either automatic welding machine or manually, Rate includes plates and flats required for expansion joint and all other materials such as synthetic rubber, rubber ring, etc. including packing as per specifications, grease, bolts and nuts, local handling, excluding GST levied by GOI & GOM in all respect etc. complete.			
	Expansion joints suitable for pipe diameters.			
i)	300 mm	Each	28832	
ii)	400 mm	Each	41608	
iii)	450 mm	Each	54122	
iv)	500 mm	Each	72563	
v)	600 mm	Each	85246	
vi)	700 mm	Each	106120	
vii)	750 mm	Each	116944	
viii)	800 mm	Each	136096	
ix)	900 mm	Each	158016	
x)	1000 mm	Each	189208	
xi)	1200 mm	Each	251290	
2.	<u>Blast cleaning the surface of the old or new pipeline internally</u> to remove all rust etc. complete, including providing copper slag/garnet, machinery, labour, cutting of pipes at required places and rewelding the same etc, complete as directed by Engineer-in-charge. (Pipes pieces if required for rewelding of old pipeline shall be paid separately.)	Sqm.	124	
3.	<u>Blast Cleaning</u> of old or new pipeline surface internally with mechanical cleaning machine having steel scraper blades with required passes including removing all rust, scaling etc. including cutting of pipes at required places, rewelding the same including cost of all materials and labour, etc, complete (Pipes pieces if required for rewelding of old pipeline shall be paid separately.)	Sqm.	124	
4.	<u>Blast Cleaning</u> of old pipeline surface internally by using swabbing method by passing polyurethane foam "Pig" with required hydraulic pressure, cutting of pipes at required places, rewelding the same including cost of all materials and labour, etc. complete. (Pipe pieces if required for rewelding of old pipeline shall be paid separately.)	Sqm.	146	
5.	<u>Blast cleaning</u> the surface of the old or new pipeline externally to remove all rust including providing copper slag/garnet machinery etc. complete as directed by Engineer-in-charge.	Sqm.	134	
6.	Providing and applying primer and one coat of red oxide of iron paint internally to blast cleaned surface of the pipes.	Sqm.	40	
7.	Providing and applying <u>primer and one coat of red oxide</u> of iron paint <u>internally</u> including cleaning the surface of the pipes with steel scrappers, wire brushes, and metal cleaning solution, etc.	Sqm.	67	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
8.	Providing and applying <u>primer and one coat of red oxide</u> of iron paint <u>externally</u> to blast cleaned surface of the pipes.	Sqm.	44	
9	Providing and applying <u>primer and one coat of red oxide of iron paint</u> externally including cleaning the surface of the pipes with steel scrappers, wire brushes, and metal cleaning solution, etc.	Sqm.	96	
10.	Providing and applying <u>covering coat of grey graphite</u> of approved quality including dusting the surface etc. complete.	Sqm.	49	
11.	Providing and applying <u>one coat of zinc rich epoxy primer</u> to the internal surface of pipe line at site.	Sqm.	104	
12.	Providing and applying <u>primer first coat of intertol 49 W emaline 05/58 pipe coat</u> or any other equivalent approved paint to the internal surface of pipe line at site.	Sqm.	80	
	b) Second coat	Sqm.	65	
	c) Third coat	Sqm.	64	

The page features a background of blue water droplets. A vertical strip of this pattern is on the right side, and a horizontal band is at the bottom. The text is centered within this bottom band.

SECTION – (I)XVI
M.S. PIPE LAYING

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
	XVI. M. S. PIPES LAYING			
1.	<u>Lowering, laying in position</u> to correct line and level including M. S. pipes with / without any outcoating on pedestals or chairs upon prepared formation. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack welding, and transportation upto 500 M. etc. completed as specified.			
a)	5 mm to 8 mm thick			
i)	Upto 250 mm. dia.	Rmt	413	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	486	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	557	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	631	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	705	
b)	Above 8 mm upto 12 mm thick			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	840	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	936	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1033	
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	1132	
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	1229	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	1326	
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1427	
c)	Above 12 mm upto 16 mm thick			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	1264	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1364	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	1456	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	1550	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	1643	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	1739	
d)	Above 16 mm upto 20 mm thick			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	1910	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2016	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2123	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2226	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	2334	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	2441	
e)	Above 20 mm upto 25 mm thick			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	2603	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	2751	
2.	<u>Lowering, laying in position to correct line and level including M. S. specials</u> with / without any outcoating such as distance pieces, straps, bends, tapers, etc. on pedestals or chairs upon formation. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack welding, and transportation upto 500M etc. complete.			
a)	5 mm to 8 mm thick			
i)	Upto 250 mm. dia.	Rmt	576	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	677	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	782	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	882	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	986	
b)	Above 8 mm upto 12 mm thick			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	1176	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1312	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1447	
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	1583	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	1723	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	1856	
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1993	
c)	Above 12 mm upto 16 mm thick			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	1833	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1907	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	2041	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2170	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2305	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2434	
d)	Above 16 mm upto 20 mm thick			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	2629	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2747	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2972	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	3120	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	3266	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3416	
e)	Above 20 mm upto 25 mm thick			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	3640	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3850	
3.	<u>Lowering, laying in position to correct line and level including M. S. pipes</u> with / without any outcoating, on pedestals or chairs upon piers, trestles etc. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack welding, transportation upto 500 m. etc. complete.			
a)	5 mm to 8 mm thick			
i)	Upto 250 mm. dia.	Rmt	494	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	580	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	669	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	757	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	846	
b)	Above 8 mm upto 12 mm thick			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	1008	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1123	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1241	
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	1357	
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	1476	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	1592	
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1707	
c)	Above 12 mm upto 16 mm thick			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	1454	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1525	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	1748	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	1862	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	1977	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2072	
d)	Above 16 mm upto 20 mm thick			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	2291	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2420	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2545	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2672	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	2800	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	2928	
e)	Above 20 mm upto 25 mm thick			

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	3121	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3301	
4	<u>Lowering and laying in position to correct line and level including M. S. specials</u> such as distance pieces, straps, bends, tapers, etc. on pedestals or chairs upon piers or trestles. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack welding, and including transportation upto 500 m. etc. complete as specified.			
	<u>a) 5 mm to 8 mm thick</u>			
i)	Upto 250 mm. dia.	Rmt	691	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	814	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	935	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	1060	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1179	
	<u>b) Above 8 mm upto 12 mm thick</u>			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	1411	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1575	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1738	
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	1901	
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	2066	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	2231	
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	2394	
	<u>c) Above 12 mm upto 16 mm thick</u>			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	2199	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	2287	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	2448	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2606	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2762	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2924	
	<u>d) Above 16 mm upto 20 mm thick</u>			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	3212	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	3387	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	3566	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	3739	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	3919	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	4100	
	<u>e) Above 20 mm upto 25 mm thick</u>			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	4371	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	4619	
5.	Transporting within 500 meters, laying in position to correct line and level <u>M. S. pipes with / without any outcoating, on prepared bedding in trenches</u> including marginal cutting wherever required, assembling tack welding the same. The rate to include loading, unloading, hoisting, etc. complete as specified.			
	<u>a) 5 mm to 8 mm thick</u>			
i)	Upto 250 mm. dia.	Rmt	421	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	498	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	573	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	647	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	723	
	<u>b) Above 8 mm upto 12 mm thick</u>			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	861	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	960	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1060	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	1162	
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	1258	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	1357	
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1456	
c)	Above 12 mm upto 16 mm thick			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	1340	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1398	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	1494	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	1590	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2941	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	1784	
d)	Above 16 mm upto 20 mm thick			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	1953	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2059	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2170	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2280	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	1970	
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	2498	
e)	Above 20 mm upto 25 mm thick			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	2659	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	2813	
6.	Transporting within 500 meters, laying in position to correct line and level M. S. specials pipes with / without any outcoating, such as distance pieces, straps, bends, tapers, etc. on prepared bedding in trenches including marginal cutting wherever required, assembling tack welding, the same. The rate to include loading, unloading, hoisting, etc. complete as specified.			
a)	5 mm to 8 mm thick			
i)	Upto 250 mm. dia.	Rmt	594	
ii)	Above 250 mm. Upto 500 mm. dia.	Rmt	695	
iii)	Above 500 mm. Upto 750 mm. dia.	Rmt	801	
iv)	Above 750 mm. Upto 1000 mm. dia.	Rmt	904	
v)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1012	
b)	Above 8 mm upto 12 mm thick			
i)	From 750 mm. Upto 1000 mm. dia.	Rmt	1206	
ii)	Above 1000 mm. Upto 1250 mm. dia.	Rmt	1345	
iii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	1483	
iv)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	1623	
v)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	1885	
vi)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	1968	
vii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	2041	
c)	Above 12 mm upto 16 mm thick			
i)	From 2000 mm. Upto 2250 mm. dia.	Rmt	1876	
ii)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	2030	
iii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	2089	
iv)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2225	
v)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	2365	
vi)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	2498	
d)	Above 16 mm upto 20 mm thick			
i)	From 2500 mm. Upto 2750 mm. dia.	Rmt	2714	
ii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	2886	
iii)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	3039	
iv)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	3192	
v)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	3344	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
vi)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3499	
e)	Above 20 mm upto 25 mm thick			
i)	From 3500 mm. Upto 3750 mm. dia.	Rmt	3721	
ii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	3939	
7.	Welding in all positions with required number of runs, for M. S. pipes internally and / or externally including gauging wherever necessary, fixing appurtenances and other accessories in connection with pipe laying work as per specification.			
i)	4 mm.	Rmt	191	
ii)	5 mm.	Rmt	289	
iii)	6 mm.	Rmt	681	
iv)	7 mm.	Rmt	759	
v)	8 mm.	Rmt	954	
vi)	10 mm.	Rmt	1168	
vii)	12 mm.	Rmt	1251	
viii)	14 mm.	Rmt	1489	
ix)	16 mm.	Rmt	1804	
x)	18 mm.	Rmt	1953	
xi)	20 mm.	Rmt	2340	
xii)	22 mm.	Rmt	2937	
xiii)	25 mm.	Rmt	3986	
i)	B) Lap joints with convex fillet welds Lap Lengths			
ii)	5 mm.	Rmt	268	
iii)	6 mm.	Rmt	343	
iv)	8 mm.	Rmt	454	
v)	10 mm.	Rmt	507	
vi)	12 mm.	Rmt	759	
vii)	14 mm.	Rmt	1031	
viii)	16 mm.	Rmt	1135	
ix)	18 mm.	Rmt	1378	
x)	20 mm.	Rmt	1553	
xi)	22 mm.	Rmt	2077	
xii)	25 mm.	Rmt	2521	
8.	Shifting and aligning ring girders including removing tack welds and re-tacking in the correct position etc. complete as per specification for the pipes of following diameter.			
i)	From 1000 mm. Upto 1250 mm. dia.	Rmt	520	
ii)	Above 1250 mm. Upto 1500 mm. dia.	Rmt	637	
iii)	Above 1500 mm. Upto 1750 mm. dia.	Rmt	751	
iv)	Above 1750 mm. Upto 2000 mm. dia.	Rmt	867	
v)	Above 2000 mm. Upto 2250 mm. dia.	Rmt	981	
vi)	Above 2250 mm. Upto 2500 mm. dia.	Rmt	1096	
vii)	Above 2500 mm. Upto 2750 mm. dia.	Rmt	1210	
viii)	Above 2750 mm. Upto 3000 mm. dia.	Rmt	1328	
ix)	Above 3000 mm. Upto 3250 mm. dia.	Rmt	1443	
x)	Above 3250 mm. Upto 3500 mm. dia.	Rmt	1559	
xi)	Above 3500 mm. Upto 3750 mm. dia.	Rmt	1673	
xii)	Above 3750 mm. Upto 4000 mm. dia.	Rmt	1799	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
9.	Transporting within 500 meters and fixing in position stools, base plates, roller sets, grease box covers, etc. including welding wherever necessary. The rate also to include fixing stools, base plates, etc. in true line and level, connecting the base plate to anchor bolts by flush welding including cutting the bolts, if required, assembling and aligning C. I. or M. S. roller sets of any size including oiling, greasing, etc. The rate also to include grouting anchor bolts, welding of two halves of grease box covers as directed by Engineer-in-charge, for pipes of following dia.			
i)	From 1000 mm. Upto 1250 mm. dia.	Each	1901	
ii)	Above 1250 mm. Upto 1500 mm. dia.	Each	2056	
iii)	Above 1500 mm. Upto 1750 mm. dia.	Each	2212	
iv)	Above 1750 mm. Upto 2000 mm. dia.	Each	2366	
v)	Above 2000 mm. Upto 2250 mm. dia.	Each	2521	
vi)	Above 2250 mm. Upto 2500 mm. dia.	Each	2676	
vii)	Above 2500 mm. Upto 2750 mm. dia.	Each	2833	
viii)	Above 2750 mm. Upto 3000 mm. dia.	Each	2985	
ix)	Above 3000 mm. Upto 3250 mm. dia.	Each	3142	
x)	Above 3250 mm. Upto 3500 mm. dia.	Each	3297	
xi)	Above 3500 mm. Upto 3750 mm. dia.	Each	3479	
xii)	Above 3750 mm. Upto 4000 mm. dia.	Each	3605	
10.	Transporting within 500 meters and aligning, fixing in position and tack welding expansion joints suitable for pipeline of diameters.			
i)	From 1000 mm. Upto 1250 mm. dia.	Each	6432	
ii)	Above 1250 mm. Upto 1500 mm. dia.	Each	6670	
iii)	Above 1500 mm. Upto 1750 mm. dia.	Each	6911	
iv)	Above 1750 mm. Upto 2000 mm. dia.	Each	7151	
v)	Above 2000 mm. Upto 2250 mm. dia.	Each	13518	
vi)	Above 2250 mm. Upto 2500 mm. dia.	Each	13820	
vii)	Above 2500 mm. Upto 2750 mm. dia.	Each	14121	
viii)	Above 2750 mm. Upto 3000 mm. dia.	Each	14330	
ix)	Above 3000 mm. Upto 3250 mm. dia.	Each	14726	
x)	Above 3250 mm. Upto 3500 mm. dia.	Each	15029	
xi)	Above 3500 mm. Upto 3750 mm. dia.	Each	15327	
xii)	Above 3750 mm. Upto 4000 mm. dia.	Each	15630	
11.	Transporting within 500 meters aligning and fixing in position and tack welding only, including marginal cutting, supplying and providing rubber packing etc. where necessary.			
	A) Minor fixtures such as manhole cover, pressure and non-	MT	11513	
	B) Minor fixtures such as tees, domes, 'Y' branches, insulating	MT	5850	
12.	Gas cutting (either square cut or V cut) pipes, plates, etc. of thickness.			
	i) Upto 5 mm.	Rmt	87	
	ii) Above 5 mm. Upto 10 mm.	Rmt	123	
	iii) Above 10 mm. Upto 14 mm.	Rmt	158	
	iv) Above 14 mm. Upto 18 mm.	Rmt	182	
	v) Above 18 mm. Upto 22 mm.	Rmt	252	
	vi) Above 22 mm.	Rmt	337	
13.	Gas cutting holes upto 50 mm dia (for plugs) Thickness of shell			
	a) 5 mm. to 12 mm	No.	95	
	b) Above 12 mm	No.	133	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
14.	Providing M.S. bar mesh prepared out of 16 mm dia M.S. bar at 15 cm. c/c both ways, welded to flanged ring including tack welding of bars and fixing the same with nuts and bolts on open faces of outlet/inlet pipes in the sump or reservoir, etc. complete as directed by Engineer-in-charge.	Sqm	1746	
15.	Providing permanent test points on the pipe line as per drawing and as directed by Engineer-in-charge including providing and fixing sluice valves, road boxes for sluice valves of size 80 mm to 250 mm in one brick masonry chamber 300 mm x 300 mm clear C. M. 1:5 with 12 mm thick in 1:3 cement plaster both inside and outside on M-100 C.C. 150 mm thick etc. complete as specified and directed.	No.	3915	
16.	Supplying transporting, the S.P. fire hydrants including duck foot bend, S.V. and S.V. road box, painting the hydrant, fixing the saddle piece, supplying, and laying required length of C.I. pipeline and jointing the same spun yarn, molten lead including caulking, fixing the S.V. road box in one brick masonry chamber in 1:5 C.M. with 12 mm thick 1:3 cement plaster both inside and outside on 1:3:6 C.C. 150 mm thick etc, complete specified and directed. [As per I.S.900/1965 Revised]	No.	15507	
17.	Hydraulic testing of M.S. pipeline to specified pressure including cost of all materials and labour and water for testing for the length upto 1km., using reciprocating type pumps which should be able to provide specified test pressure gauges and other necessary equipments, labour, operation charges, etc. required for testing. The rate under this item shall also include cost of retesting, if necessary.			
a)				
i)	Upto 600 mm. dia. (I.D.)	Km.	54504	
ii)	Above 600 mm. upto 750 mm. dia. (I.D.)	Km.	54584	
iii)	Above 750 mm. upto 900 mm. dia. (I.D.)	Km.	54710	
iv)	Above 900 mm. upto 1050 mm. dia. (I.D.)	Km.	54899	
v)	Above 1050 mm. upto 1200 mm. dia. (I.D.)	Km.	55086	
vi)	Above 1200 mm. upto 1500 mm. dia. (I.D.)	Km.	55458	
vii)	Above 1500 mm. upto 1800 mm. dia. (I.D.)	Km.	56003	
viii)	Above 1800 mm. upto 2250 mm. dia. (I.D.)	Km.	56918	
ix)	Above 2250 mm. upto 2500 mm. dia. (I.D.)	Km.	57586	
x)	Above 2500 mm. dia. (I.D.)	Km.	58252	
b) Extra work initial km				
xi)	Upto 600 mm dia. (I.D.)	Km.	276	
xii)	Above 600 mm dia. upto 750 mm dia. (I.D.)	Km.	397	
xiii)	Above 750 mm dia. upto 900 mm dia. (I.D.)	Km.	589	
xiv)	Above 900 mm dia. upto 1050 mm dia. (I.D.)	Km.	778	
xv)	Above 1050 mm dia. upto 1200 mm dia. (I.D.)	Km.	1001	
xvi)	Above 1200 mm dia. upto 1500 mm dia. (I.D.)	Km.	1480	
xvii)	Above 1500 mm dia. upto 1800 mm dia. (I.D.)	Km.	2235	
xviii)	Above 1800 mm dia. upto 2250 mm dia. (I.D.)	Km.	3430	
xix)	Above 2250 mm dia. upto 2500 mm dia. (I.D.)	Km.	4271	
xx)	Above 2500 mm dia. upto 2750 mm dia. (I.D.)	Km.	5167	
xxi)	Above 2750 mm dia. upto 3000 mm dia. (I.D.)	Km.	6096	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
18.	Providing and applying with mechanical arrangement 1:3 proportion <u>cement sand gunite, 40 to 50 mm thick to M. S. pipe</u> surface under 2.1 kg. per sqcm. to 2.80 kg. per sqcm. pressure including removing the loose materials as directed by Engineer-in-charge and including scrapping the surface with wire brushes, degreasing, cleaning by compressed air and providing fixing BRC fabric no.14 as reinforcement, curing for 21 days, disposing off the rebound materials within a lead of 50 M, etc. complete as directed by Engineer-in-charge.	Sqm.	609	
19.	Providing and applying <u>pipe coating of fibres, coal tar and solvent based rubber modified bituminous primer</u> of density 0.92 gms/cu cm and viscosity of 1000-2000 cps @ 150 gms/sqm followed by seven layers(4mm thick) of polythene polymerised bitumen and polyester of local 7 layers) pipe coat 4 mm should conform to requirement of IS-10221 and AWWA C-203 for prefabricated tapes including covering cost on pipe coating. Rates shall include cost of material coating and wrapping over the pipes, handling charges, preparation of pipe surface, all labour, material, etc. complete.	Sqm.	656	
	Note : Pipe coating is to be done at laying work site only.		0	
20.	Providing and applying with mechanical arrangement <u>cement sand gunite</u> of 50 mm thickness to floors, walls, floor slabs or any other structure under 2.1 kg. per sqcm. to 2.80 kg. per sqcm. pressure including removing the loose materials on surface, cleaning with comperssed air, degreasing, etc. including scaffolding and curing for 21 days, providing and fixing BRC fabric no. 14 but excluding cost of reinforcement, if any and removing rebound materials within a lead of 50 M, etc. complete as directed by Engineer-in-charge (for GSRs and buildings.)	Sqm.	600	
21.	Providing and applying with mechanical arrangement <u>cement sand gunite</u> of 50 mm thickness to floors, walls, roof slabs or any other structure under 2.1 kg. per sqcm. to 2.80 kg. per sqcm. pressure including removing the loose materials on surface, cleaning with compressed air, degreasing, etc. including scaffolding and curing for 21 days, providing and fixing BRC fabric no. 14 but excluding cost of reinforcement, if any and removing rebound materials within a lead of 50 M, for staging and bottom of bottom slab, etc. complete as directed by Engineer-in-charge (for RCC ESRs)	Sqm.	530	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
22.	Providing and making <u>inner cement mortar lining to M.S. pipes</u> with mechanical devices in cement mortar 1:1 proportion, including cost of all materials, labour, special sand required, machinery, power generation, all equipments and taking necessary access openings and manholes, cuts at suitable intervals as directed by Engineer-in-charge and rewelding the same after done with doubler plates pipes including necessary excavation, refilling concrete breaking and remaking if any, breaking gunting and remaking the same, repainting wherever required with epoxy paint in 3 coats, all dewatering including emptying the pipeline and refilling the same after done with (water to be supplied by department free of cost within 5 km. lead at fixed point and all other arrangements to be done by agency), including carrying out "C" value performance test of pipeline, complete job as per the directions of the Engineer-in-charge.			
	i) 9 mm thick for pipes upto 700 mm dia.	Sqm.	476	
	ii) 12 mm thick for pipes above 700 mm dia.	Sqm.	552	
23.	<u>Providing and applying of elastomeric (450% elongation), thermoplastic, fire retardant, coating</u> skin tensile strength 18 to 21 kg/cm ² , antifungal, antibacterial, anticorrosive, graft co-polymer Coating on smooth plastered surface. 100 Micron dyufilm thickness of self bonding with plastered surface and 100 Micron of top coat. For sewage treatment plant (R. C. C. Tank inside coating) and water treatment plant.	Sqm.	1547	
24.	<u>Providing and applying external and internal coating for steel structures</u> in sewage treatment plant/water treatment plant with elastomeric (450% elongation), thermoplastic, fire retardant, coating skin tensile strength 18 to 21 kg/cm ² , antifungal, antibacterial, anticorrosive, graft co-polymer. 50 Micron DFT. of self bonding with steel, 50 Micron DFT. of inner coat and 50 Micron DFT of top coat.	Sqm.	904	
25.	<u>Providing and applying of elastomeric (450% elongation), thermoplastic, fire retardant, coating</u> skin tensile strength 18 to 21 kg/ cm ² , antifungal, antibacterial, anticorrosive, graft co-polymer coating on external pipe lines in unlaidd/laid condition after proper cleaning. 50 micron DFT of self bonding grade with metal surface, 50 Micron DFT of self bonding grade with metal surface, 50 Micron DFT inner coat and 50 Micron DFT of top coat.		0	
	1) Water and sewage pipe lines (external) in unlaidd condition.	Sqm.	946	
	2) Water and sewage pipe lines (external) in laidd condition.	Sqm.	970	
26.	<u>Providing and applying of elastomeric (450% elongation), thermoplastic, fire retardant, coating</u> skin tensile strength 18 to 21 Kg/ cm ² , antifungal, antibacterial, anticorrosive, graft co-polymer coating on internal surface of pipe lines. <u>100 Micron DFT of site bonding grade with steel surface and 100 Micron DFT of top coat.</u>			
	1) Pipe line in unlaidd condition	Sqm.	1191	
	2) Pipe line in laidd condition	Sqm.	1271	

Sr. No.	Description	Unit	Rate (in Rs.) 2019-2020	Rate (in Rs.) 2020-2021
1	2	3	4	5
27.	<u>Providing and applying of elastomeric (450% elongation), thermoplastic, fire retardant, coating</u> skin tensile strength 18 to 21 kg/cm ² , antifungal, antibacterial, anticorrosive, graft co-poly-mer coating on cleaned steel reinforcement bars. 80 to 100 micron DFT With self bonding trade of bar coating.			
1.	6 mm dia.	MT	43309	
2.	8 mm dia.	MT	33140	
3.	10 mm dia.	MT	26260	
4.	12 mm dia.	MT	21852	
5.	16 mm dia.	MT	16363	
6.	20 mm dia.	MT	13316	
7.	25 mm dia.	MT	10515	
8.	32 mm dia.	MT	8427	
9.	40 mm dia.	MT	6400	
28.	Providing and <u>applying of H D P E coating for MS pipe internally as well as externally</u> including cost of H D P E powder moulding pipe grade, labour, scrapping the pipe surface with wire brushes, degreasing, cleaning by compressed air and surface grinding and finishing including cost of loading , unloading and handling of pipe at factory etc. complete as directed by Engineer -in -charge.			
	<u>HDPE coating thickeess in micron</u>	<u>Total coating</u>	<u>Unit</u>	
	<u>External</u>	<u>Internal</u>	<u>thickness in micron</u>	
1.	0	2000	2000	Sq. m 2383
2.	2000 micron	1000	3000	Sq. m 2993
3.	3000 micron	1000	4000	Sq. m 3440
4.	3000 micron	2000	5000	Sq. m 3953

SECTION – J(I)
TREATMENT PLANTS (WTP & STP)

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	Water Treatment Plant (WTP)					
1	Designing (aesthetically), providing and constructing high rate Unconventional Water Treatment Plant i.e. Simplified Water Treatment Plant consisting of Civil, Mechanical and Electrical works including cost of providing and applying epoxy paint to inside surface of water retaining structures in contact with chlorine and providing anti-termite treatment to entire structure below ground level, mechanical and electrical components of various sub-works as given below, including necessary hydraulic testing, structural testing and trial run for 3 months, etc. complete as directed by Engineer-in-charge (turnkey job) works.					
1)	Aeration fountain					
2)	Inlet arrangements					
3)	Mixing channel with ventury flume and flow measuring arrangement					
4)	Inlet channel					
5)	Flocculator - Conforming to I.S. 72081974 (Type-C) with detention period of 30 minutes					
6)	Tube settlers - Designing, fabricating and constructing Tube Settlers with square or any other shaped tube like Circular, Cheveron, Hexagonal etc. having proven performance.					
7)	Rapid sand gravity filters					
8)	Filter house					
9)	Chemical house					
10)	Alum tanks - 2 Nos. with mixing, carrying and dosing arrangements with piping.					
11)	Gravity feed gas chlorinator with 100% standby.					
12)	TCL solution tank with mixing, carrying and dosing arrangement with piping.					
13)	Bypass arrangement					
14)	External and internal electrification					
15)	Laboratory equipments					
16)	Wash water tanks of capacity equal to 2% of designed quantity of filtered water in a day (+)10%.					
17)	Wash water pumps with 100% standby.					
18)	Air blowers capable of delivering 600 LMP per square metre of free air of filter area at 0.4 Kg/ sqcm at the under drains (100% standby).					
19)	Pure water sump of capacity equal to 1 hour pumping capacity.					
20)	Pure water pump house over the sump / by the side pump.					
21)	Drainage arrangements					
22)	Alum store					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
23)	Sanitary block with necessary water supply and drainage arrangements and internal WBM roads.					
24)	These rates are applicable for seismic zones 2, 3 and 4.					
25)	Rates given below are inclusive of uplift pressure if any and dewatering during the entire work.					
26)	All RCC structures shall be constructed in M-300.					
27)	Unconventional Treatment Plants less than 1 MLD capacity shall not be constructed.					
28)	Up to 3 MLD capacity no air blower will be required.					
29)	Up to 5 MLD WTP, 100 kg. and for above 5 MLD WTP 900 kg. Chlorine Tonner supply shall be provided.					
30)	i) Glandless valves shall be provided. ii) Stainless steel railing shall be provided. (32 mm dia.(SS316) as per relevant standard) iii) All WTP & its components outside faces shall be painted by Acrylic Emulsion with silicon additives paint only. iv) Ceramic tiles shall be provided for flooring and Dado.					
	Note : Conditions from Sr. No. 1 to 30 shall form a part and parcel of the tender and must be included in draft tender papers for the work of unconventional treatment plants.					
	Unconventional Water Treatment Plant					
1)	Fixed cost for 1 MLD	Job	57.50	23.00		
2)	Add for capacity above 1 MLD upto 2 MLD	MLD	24.15	10.00		
3)	Cost of 2 MLD treatment plant	Job	81.65	33.00		
4)	Add for capacity above 2 MLD upto 5 MLD	MLD	19.17	8.00		
5)	Cost of 5 MLD treatment plant	Job	139.15	55.00		
6)	Add for capacity above 5 MLD	MLD	14.95	6.00		
7)	Cost of 10 MLD treatment plant	Job	213.90	85.00		

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
2	<u>Designing (aesthetically), providing, constructing and commissioning Conventional Water Treatment Plant</u> consisting of all Civil, Mechanical and Electrical works including cost of providing and applying epoxy paint to inside surface of water retaining structures in contact with chlorine and providing anti-termite treatment to entire structure below ground level, mechanical and electrical components of various sub-works as given below, including necessary hydraulic testing, structural testing, equipment testing and trial run for a period of 3 months, etc. complete as directed by Engineer-in-charge (turn-key job).					
1)	Aeration Fountain - Plan area not less than 0.625 square metre per MLD					
2)	Ventury Flume - With necessary devices, consisting of simple mechanical indicator. (Pedestal type gauge)					
3)	Flash Mixer - Rapid mixing device, detention time 60 seconds to give velocity gradient 300 to 400 sec-1, vane mixer type conforming to I.S. 7090 of 1985.					
4)	Flocculator - Conforming to I.S. 72081974 (Type-C) with detention period of 30 minutes.					
5)	Clarifier - Horizontal flow circular tank, detention period 2-5 hours, overflow rate 30 cubic metre per square metre per day (to be specified), Weir loading not more than 300 cubic metre per metre per day, with mechanical sludge scraper conforming to I.S. No. 103131982.					
6)	Rapid Sand Filters and Filter House -Filter designed for filtration rate of 5,000 litres per square metre per hour, minimum 2 beds for plant upto 10 MLD, for larger plants as specified, filters to be located in filter house with roof slab, pipe gallery and platform minimum 5.5 metre in width.					
a)	Filter Sand - Effective size 0.45 to 0.70 mm, uniformity coefficient not more than 1.7, nor less than 1.3, depth of water over sand 0.75 M, free board 50 cm, gravel 0.45 M in depth, sand and gravel conforming to I.S. 8491(i)-77, backwash by air wash, standard appurtenances (to be specified), rate of flow controller, filter gauge, sand expansion gauge, etc.					
b)	Wash Water Tank - Capacity to be specified and suitable to supply water to wash 2 filter units at a time where the units are 4 or more.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
c)	Wash Water Pumps - Capacity to fill water tank in 1 hour with 100% standby.					
d)	Air Blowers - Capable of delivering 600 LMP per square metre of free air, of filter area at 0.4 kg/sqcm at the underdrains (100% standby).					
7)	Chemical House in Two Storeys					
a)	Ground floor to accommodate 7 days' alum requirement and sundry storage.					
b)	First floor to accommodate alum and lime tanks. etc.					
c)	Solution tanks - Minimum 3 tanks (one for preparation, second for dosing and third as standby), each tank capable of giving 8 hours maximum dose without interruption, minimum free board 0.30 M, trays for dissolving, level indicator, mechanical agitation devices, solution feed and drain lines, solution feed device (constant head device, strength of solution upto 10% only) conforming to I.S. 9222 Part-I 1979.					
8)	Pure Water Sump and Sump House.					
a)	Capacity of sump - One hour of designed flow.					
b)	Pump House - Pump house of required size over the sump or by the side.					
9)	Store House - Suitable for alum storage of three months' requirement in monsoon with 10% extra capacity for other sundry articles.					
10)	Vacuum feed type Chlorinators - Make to be approved by MJP.					
a)	Conforming to I.S. 10533 - A Part-II 1983.					
b)	Rate for withdrawal					
	Temperature Kg. of Chlorine discharge Degree 'C' per day (Cylinders)					
	45 67 Tonnes					
	10 6.35 9.50 110					
	15 10.75 16.10 130					
	20 14.50 21.24 254					
	27&Above 18.70 28.12 315					
c)	Chlorinator equipment and container room to conform to I.S. 10553 Part-I 1983.					
d)	100% standby shall be provided.					
11)	By pass arrangements - C.I. or M.S. pipes.					
12)	Drainage arrangements - RCC pipes upto plot boundary.					
13)	Electrical installation - Both internal and external including entire plant area.					
14)	Laboratory equipment - As per requirement (to be specified during tendering).					
15)	Sanitary blocks - Carpet area - 15 square metre minimum upto 25 Mld and 25 square metre above 25 Mld.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
16)	Administrative block and internal road -To accommodate office room, chlorine room, laboratory room, panel board room, blower room etc. and WBM road to connect all units from main gate of plot.					
17)	Rates given below are inclusive of uplift pressure if any and dewatering during entire work.					
18)	These rates are applicable for seismic zones 2, 3 and 4.					
19)	All RCC structures shall be constructed in M-300.					
20)	Upto 5 MLD WTP , 100 kg. & for above 5MLD WTP , 900 kg. Chlorine Tonner supply shall be provided.					
21)	i) Glandless valves shall be provided. ii) Stainless steel railing shall be provided. (32 mm dia.(SS316) as per relevant standard) iii) All WTP & its components outside faces shall be painted by Acrylic Emulsion with silicon additives paint only. iv) Ceramic tiles shall be provided for flooring and Dado.					
	Note : Conditions from Sr. No.1 to 21 shall form a part and parcel of the tender and must be included in draft tender papers of conventional treatment plants.					
	<u>Conventional Water Treatment Plant</u>					
1)	Upto 5 MLD	MLD	35.19	14.00		
2)	Cost of 5 MLD treatment plant	Job	175.95	70.00		
3)	Add for capacity above 5 MLD upto 10 MLD					
		MLD	25.07	10.00		
4)	Cost of 10 MLD treatment plant	Job	301.30	121.00		
5)	Add for capacity above 10 MLD upto 20 MLD					
		MLD	16.10	7.00		
6)	Cost of 20 MLD treatment plant	Job	464.60	185.00		
7)	Add for capacity above 20 MLD upto 50 MLD					
		MLD	15.03	6.00		
8)	Cost of 50 MLD treatment plant	Job	915.40	366.00		
9)	Add for capacity above 50 MLD upto 100 MLD					
		MLD	12.56	5.00		
10)	Cost of 100 MLD treatment plant	Job	1543.30	618.00		
11)	Add for capacity above 100 MLD	MLD	6.90	2.00		
3	Designing (aesthetically), providing, fabricating <u>Package Water Treatment Plant</u> at the shop, transporting to site, installing, testing and commissioning at the site, giving necessary one month's free test and trail run with guarantee for one year, etc. complete.					
	Prefabricated Package Water Treatment Plant comprising following :					
1)	Rapid mixing channel in M.S. sheets and M.S. baffle.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
2)	Flocculator not less than 10 minutes detention, in M.S. prefabricated box, flocculation being achieved either by glass pebbles of graded size or PVC tetrapod or equivalent arrangement to ensure good floc formation.					
3)	Plate or tube settlers of not less than 30 minutes detention in M.S. prefabricated box, the plates / tubes mounted in the settler basin with inclination of not less than 60 degree to horizontal.					
4)	Rapid sand gravity filter in M.S. prefabricated box with filter sand not less than 500 mm thick, supported on false floor below with polypropylene nozzles spaced at not more than 500 mm centres in either direction.					
5)	Backwashing, inlet facilities only shall be provided. Department shall provide either ESR giving 8 to 10 M head at filter nozzles or backwash pump, having flow rate of 0.6 Cum per minute per square metre of filter bed. (Limit upto 5.0 M. from W.T.P. face)					
6)	All civil works for foundation, consisting of raised RCC platform above G.L. or walls in B.B. masonry or UCR masonry shall be provided as per needs at site.					
7)	Bypass in the form of pipes or M.S. channels included in the design, effecting bypass of such new tank and filter individually or both. (Limit upto 5.0 M. from W.T.P. face)					
8)	The entire M.S. fabricated tank provided with FRP lining (5 mm thick) to inside face in contact with water epoxy painting- two coats with one coat of primer on outside. The thickness of plates employed shall not be less than 6 mm					
9)	Alum dosing and mixing arrangements to be provided in twin tanks, each of 8 hours capacity, capable of importing does of 20 ppm with 5% solution. The alum tanks provided with a dose in steps of 5 ppm and entire unit mounted on the top of flocculator / settler box, in the form of prefabricated structure, with access platform and ladder. Alum boxes with FRP lining (5 mm thick) inside and epoxy paint two coats with one coat of primer on outside.					
10)	Both flocculator and settling basins provided with hopper bottom with slope not less than 45 degrees to the horizontal drain pipes and valves provided to both flocculator and settling basin.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
11)	Flow ratings to conform following parameters :					
a)	Velocities in channels not to exceed 0.6 M./Second.					
b)	Velocities in filter outlet pipes and valves not to exceed 1 M./Second.					
c)	Velocities in interconnecting pipe and controls not to exceed 1M./Second.					
d)	Backwash with air : Not required.					
e)	Backwash with water : Not less than 0.6 M./Sqm. of filter bed area in filter box.					
12)	Free board for all units not less than 300 mm					
13)	Rates as above include all taxes, octroi and duties which would be specific to the site locations.					
	Package Water Treatment Plant					
1)	21 Cum/Hr. (0.50 MLD)	Each	28.75	12.00		
2)	34 Cum/Hr. (0.80 MLD)	Each	35.65	14.00		
3)	42 Cum/Hr. (1.00 MLD)	Each	40.25	16.00		
4)	63 Cum/Hr. (1.50 MLD)	Each	50.60	20.00		
5)	83 Cum/Hr. (2.00 MLD)	Each	59.80	24.00		
6)	125 Cum/Hr. (3.00 MLD)	Each	75.90	31.00		
	Note : Depending upon the capacity required for the scheme, one of the above capacities should be chosen.					
	<u>Sewage Treatment Plant (STP)</u>					
4A	Designing (aesthetically), providing, constructing and giving satisfactory trials of <u>modernised Sewage Treatment Plant</u> consisting of receiving chamber, screen chamber, grit chamber, measuring flume, distribution chamber with primary and secondary treatment, etc. as detailed below, administration block of suitable size including allied units for waste disposal with all civil and mechanical works involved, etc. complete (turn key job).					
	<u>Primary treatment - with extended sludge drying beds</u>					
	<u>Rates</u>					
1)	Upto 10 MLD	MLD	49.22	19.00		
2)	Cost of 10 MLD plant	Job	492.20	197.00		
3)	Add for capacity above 10 MLD upto 20 MLD	MLD	43.01	17.00		
4)	Cost of 20 MLD plant	Job	922.30	369.00		
5)	Add for capacity above 20 MLD	MLD	36.92	15.00		
6)	Cost of 50 MLD plant	Job	2029.75	812.00		
7)	Add for capacity above 50 MLD	MLD	30.75	13.00		
8)	Cost of 100 MLD plant	Job	3567.30	1427.00		

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
B	Designing (aesthetically), providing, constructing and giving satisfactory hydraulic testing, commissioning and giving satisfactory trials of <u>modernised Sewage Treatment Plant</u> consisting of inlet chamber, screen chamber, detritus tanks, parshall flume, primary settling tanks, aeration tanks, secondary settling tanks, sludge sump and pump house, sludge thickener, primary digester, secondary digester, SST sump and pump house, chlorine contact tank, chlorinators, chlorinator room, sump cum blending tank, PST sludge sump cum blending tank, pump house, sludge centrifuge, gas holder, necessary piping work with required valves, gates, drains, pathways, administrative building cum laboratory, laboratory equipments, tools and plants, spare parts, etc. complete as turnkey job with all involved civil, electrical and mechanical works inclusive of following items, units as per detailed specification for civil, electrical and mechanical components with all duties and taxes, etc. complete.					
	<u>Inlet Chamber</u> Designing, providing and constructing RCC (M-300) inlet chamber designed for the peak flow 2 DWF including necessary excavation in all types of strata including walkway around the periphery. Each compartment will have phosphor bronze, steel gate with extension rod, head stock, operating wheel, G.I. pipe railing, etc. The work includes providing and making necessary arrangements to connect the flow to screen chamber by approach channel as directed and as per specifications.					
	<u>Screen Chambers</u> Designing, providing, constructing, testing and commissioning screen chamber designed for average 1 DWF and maximum 2 DWF in RCC (M-300) including inlet pipe/channel from inlet chamber, outlet pipe/channel to detritus tank, free board of 0.50 M minimum, RCC walkway 1.2 M wide with G.I. pipe railing, RCC staircase of 1.2 M width from GL to screen chamber.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>Detritus Tank</u> Designing, providing and constructing continuously grit removal type of detritus tank, mechanically operated in RCC (M-300) capable of removing 100%, 0.20 mm size particle and above, having specific gravity 2.30 designed for one peak 2 DWF with suitable arrangement of separation of grit from putrescible solids including providing and making necessary arrangement of JB-1 inlet and outlet channel of required sizes as may be required to connect the flow to parshall flume, etc. complete including hydraulic testing for water tightness of the structure having minimum free board of 0.30 M washout arrangement to grit chamber and platform 1.20 M wide RCC walkway with G.I. pipe hand railing shall be provided. A pit for collecting grit conveyed by conveyor shall be provided.. It should be suitable to handle the grit for carting. All arrangements shall be as per detailed specifications and as directed.					
	<u>Parshall Flume</u> Designing, providing and constructing parshall flume channel in RCC (M-300) for measuring quantity of sewage received at the treatment works, max. flow of 2 DWF and minimum flow of % DWF including providing and making necessary arrangement of approach channel as may be required to connect the flow having minimum velocity of 0.3 M per second to distribution box (DB-1). The unit shall be provided with walkway and RCC staircase having width of 1.20 M each etc. complete, including hydraulic testing for watertightness of the civil structure having free board of 0.6 M including electrically operated, flow indicating and flow integrating devices having a standby of float operated ROF meter. All arrangements as per specifications.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>Primary Settling Tanks with Equipments</u> Designing, providing, constructing and hydraulic testing in RCC (M-300) watertight primary settling tanks of 1 DWF capacity with feed chamber, sludge and effluent chamber, base adequately supported, providing 1.20 M wide clear peripheral and approach walkway inter connecting C.I. double flanged pipes from feed chamber of the clarifier distribution well, grouting wherever necessary, including foundation, etc. as per specifications, water depth at outer side shall be minimum 3.0 M, weir loading shall not be greater than 125 cum, DWF for average flow, bottom slope shall be 1:12.					
	The floor of clarifier shall have 40 mm thick (min.) screed course of cement grout of mix in CM 1:2 detention period shall be 2.25 hrs. dispersion box and stiffened weir plate made of mild steel plate not less than 8 mm thick, anticorrosive epoxy paint on both faces shall be provided. Minimum free board of 0.50 M be provided. It includes inlet pipe from distribution chamber, central shaft, inlet baffle, outlet chamber, scum remover, skimming device, scum chamber, connecting channel from PST, outlet chamber to DB-2 as per detailed specifications.					
	<u>Aeration Tank (AT)</u> Designing, providing and constructing in RCC mix (M-300) aeration tank in compartments to handle combined flow of 1 DWF incoming flow and recirculation flow including construction of inlet, outlet and distribution chamber DB-3 and providing 1.20 m wide clear peripheral approach walkways, expansion joints wherever necessary, including foundation, etc. as per specifications. Peak factor shall be 2, F/M ratio shall be 0.40, low speed aerator speed between 20 to 100 RPM, recirculation flow @50% and free board 0.60 m depth, (SWD) 3.50 M minimum, D.O. level at A.T. 2 mg/lit, MLVSS concentration shall be 2500 mg/lit and MLVSS concentration shall be 2000 mg/lit, HRT shall be 4 to 6 hours and STR 6-8 days.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	It should have compartments for washing, oxygen transfer capacity of mechanical aerator shall not be less than 1.5 kg/KWH, BOD of effluent 20 mg/lit with input to aerator 0.15 to 0.30 KWH/1000 cum of aeration tank. All related works shall be as per detailed specifications.					
	<u>Secondary Settling Tanks with Equipments</u> Designing, providing and constructing in RCC (M-300) water tight secondary settling tank having detention period 2 hours and SWD shall be 4.20 M. The effluent BOD & SS from the secondary clarifier shall not be more than 20 Mg/lit and 30 Mg/lit respectively. It should be hydraulically tested, bottom floor slope of 1:12 and free board of 0.60 M minimum. Dispersion box shall be made of mild steel plate not less than 8 mm thick with anticorrosive epoxy paint from both faces and well stiffened. The sewage admitted at the centre flowing upward and outward towards periphery be slowly and continuously collected towards a convenient discharge point near centre by a rotating wheel arm. The clarifier will be completed with end drive half rotating bridge, structural steel rake, overflow weir, walkway diffuser, over load alarms, having push buttons, starters for the clarifier, walkway and the suitable sludge withdrawing arrangement with flush valve capable of withdrawing moisture content not more than 97% to 98% slopping floor shall have 40 mm thickness (minimum), screed course of cement grout of mix 1 cement : 2					
	<u>Sludge Thickener with Equipments</u> Designing, providing and constructing watertight of sludge thickener (gravity type) including foundation in RCC (M300) with inlet and outlet chamber influent well, inlet and outlet pipes, with sludge pit and sludge removal arrangement, grouting wherever necessary with walkway all around of 1.20 M width G.I. pipe railing interconnecting CI pipes all complete as per specifications, detention time 24 hours. SWD shall be 4.25 metre with necessary fixed bridge scraper arrangement as per detailed specifications and necessary inlet and outlet arrangement. All other arrangement as per detailed specifications.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>Primary Digester with Mixer Equipment (Fixed Cover)</u> Designing, providing and constructing unit of watertight and gastight primary digester suitable for 1 DWF plant and complete with pipe gallery, building, staircase for access from dome of digester into inside staircase, walkways at springing levels, etc. walls and base slab being in RCC (M-300), domes in structural concrete including providing burners and civil works for gas collection, grouting wherever necessary, etc. complete as per specifications. It should be designed for min 9°C and max. 45°C and minimum detention time of 30 days, water depth shall not be more than 8.5 M, free board shall be 0.6 M with inlet and outlet arrangement of C.I. flanged pipes including giving hydraulic testing and airtightness testing. The item includes providing works for collecting gas and gas burner as per specifications.					
	<u>Secondary Digester with Equipment (Fixed Cover)</u> Designing, providing and constructing including foundation unit of watertight and gastight secondary digester to deal with 1 DWF complete with pipe gallery, building, staircase for access from dome of digester into inside, staircase to walkways at springing levels, etc. Walls and base slab and domes being in RCC M-300, providing arrangement for digested sludge from digesters to centrifuge, providing burners and civil works for gas collection grouting wherever necessary, etc. complete as per specifications and obligatory provision. All other arrangements as per detailed specifications.					
	<u>S.S.T. Sump and Pump House with Recirculation Pumps and Sludge Pumps to Digester</u> Designing, providing and constructing sump and pump house of requisite capacity with ceiling height not less than 6 M, sludge stream for recirculation to aeration tank and excess sludge to SCBT, including C.I. piping to carry this flow to sump as per detailed specification and as directed by Engineer-in-charge.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>Chlorine Contact Tank</u> Designing, providing and constructing chlorine contact chamber of adequate capacity to deal with 1 DWF average flow. The chlorine contact tank should be of 30 minutes capacity during average flow to achieve 99.99% coliform reduction. Chlorine dose shall be maintained as per standard provisions including designing, providing and constructing water supply arrangement for chlorination including providing dewatering and bypass arrangements, jointing to final effluent main and outlet weir, etc. complete. The effluent quality should match with the standards laid down by Maharashtra Water Pollution Control Board and as per the obligatory provisions and detailed specifications and as directed by Engineer-in-charge.					
	<u>Chlorinator and Chlorinator Room / Tonner Room</u> Designing, providing and constructing chlorinators, vacuum type 2 nos. each having capacity of 10 Kg/hr as per obligatory provisions and detailed specifications with necessary provision of chlorinator room having floor area not less than 30 sqm including automatic residual chlorine controller with actuator and residual chlorine analyser including cost of chlorine cylinder, piping, valves, measuring and controlling equipments, safety devices, lifting equipments, etc. complete as per I.S.-10553 (Part II) 1982. The tonner room should have 3 MT capacity crane for loading and unloading facility. Tonner storage should distinctly isolated and should be for minimum 10 tonners space and arrangements as per gas laws 1981 and factory act shall be provided and all other matching amenities be provided, 5 MT gantry shall be provided for full length of tonner room at 6 M height from floor level, with outlet chamber and treated effluent outlet channel, etc. complete as per detailed specifications.					
	<u>Sump cum Blending Tank (SCBT)</u> Designing, providing and constructing sump cum blending tank of appropriate size and detention time with free board of 0.60 M. The slope of floor 1:4 with suction pit at the centre as per detailed specifications and obligatory requirements.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>P.S.T. Sump cum Blending Tank, Pump House with Recirculation Pumps</u> Designing, providing and constructing pump house of appropriate size with pumps, ceiling height minimum 6 M over the circular sump for discharging the sludge to thickener and recycling of flow for blending with C.I. piping, etc. complete as per detailed specifications.					
	<u>Sludge Centrifuge Room with Centrifuges</u> Designing, providing, constructing and installing including foundation, etc. sludge centrifuge to handle the sludge flow of one day in one hour per unit with sludge dewatering unit, drain, etc. complete as per specifications, sludge centrifuge with all necessary arrangements as per detailed specifications mentioned in Volume-II and Volume-III of tender and obligatory provisions, be provided with satisfactory functioning.					
	<u>Gas Holder</u> Designing, providing and constructing gas holder having gas collection system, gas flow meter and gas burner with floating dome arrangement and storage time 6 hrs. to be constructed in M-300 having appropriate diameter as per detailed specifications and obligatory provisions. The floating dome shall be of 8 mm thick M.S. plate minimum and shall be provided with two coats of anti-corrosive epoxy coating from both faces.					
	<u>Outfall Sewer</u> Designing, providing and constructing appropriate outfall sewer of RCC NP-2 pipe to discharge treated effluent, untreated effluent from outlet chamber (after basin / chlorination tank) to the local nalla at a point shown on the drawing including necessary chambers for inspection / cleaning including necessary excavation , dewatering, refilling, concrete encasing/ bedding concrete steps to reach the nalla bed level, pitching and energy dissipation chamber in the nalla portion, etc. complete upto 50 M length RCC NP-2 pipeline and including all above items.					

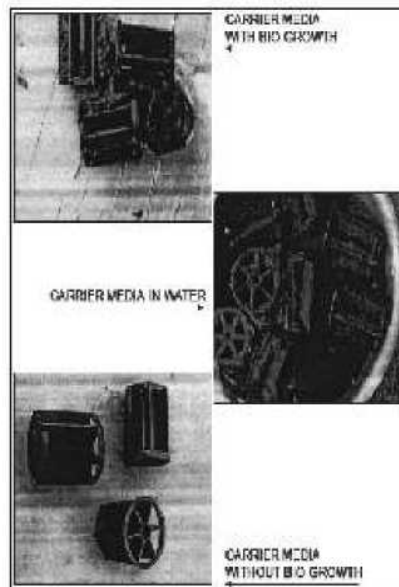
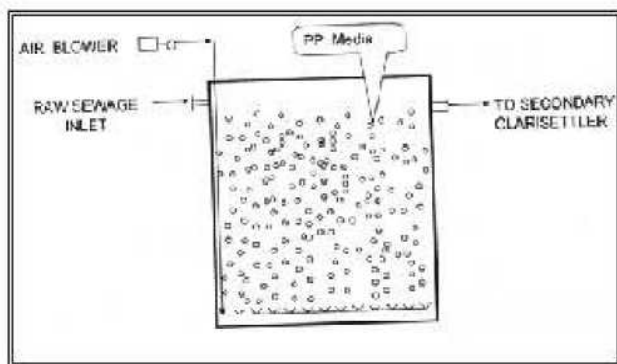
Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>Piping Work in CI 'LA' class including Sluice Valve, Reflux Valve, M.S. Gate</u> Providing, laying and jointing pipes other than those already included in the above items for interconnection bypass drains, etc. of all units including adequate numbers of manhole chambers. The item includes excavations, refilling and hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials. The item includes required channels with gates for interconnection of units, bypass drains, etc. for all units and as directed, etc. complete as per detailed specifications.					
	<u>Administrative Building cum Laboratory (G+1)</u> Designing, providing and constructing administrative building, office cum laboratory including stores. This shall be a building having appropriate carpet area at ground floor and at first floor complete as per specifications including necessary excavation, foundation in RCC M-200 framed structure, BB masonry (IInd class in CM 1:6) 20 mm cement plaster in CM 1:3 inside and outside painting, aluminium door and window with glass panels, mosaic tile flooring and skirting and all other allied items, fixtures, fastening electrification arrangements, water supply arrangement, etc. complete. The building will have laboratory on upper floor of administrative building and should be so centralised that it should not be attached with any unit but should have complete control of every unit as per laboratory equipment, beautification, telephone and intercom arrangement and wireless system.					
	<u>Primary and secondary treatment-with digesters, sludge drying beds, etc. complete.</u>					
	<u>Rates</u>					
1)	Upto 10 MLD	MLD	59.00	24.00		
2)	Cost of 10 MLD plant	Job	589.95	236.00		
3)	Add for capacity above 10 MLD upto 20 MLD					
		MLD	51.75	21.00		
4)	Cost of 20 MLD plant	Job	1107.45	443.00		
5)	Add for capacity above 20 MLD	MLD	44.28	17.00		
6)	Cost of 50 MLD plant	Job	2435.70	974.00		
7)	Add for capacity above 50 MLD	MLD	36.89	15.00		
8)	Cost of 100 MLD plant	Job	4280.30	1712.00		

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
5	Designing, manufacturing, supplying and erecting of Filter Plant including cost of underdrain system, cost of filter media, transportation to work site connecting inlet, outlet pipelines of water supply scheme to the plant with fixing of required appurtenances, gauges, valves, water level and flow indicator, etc. including all duties and taxes. The cost includes supply of operation and maintenance manual free of cost, one month trial run after completion of erection work with labour cost, the required training to the staff of Department and Gram Panchayat, 5 years' performance guarantee after commissioning against manufacturing defect. The work includes cost of construction of RCC masonry as and where necessary including excavation if required, epoxy painting to all units inside and outside of the plant, etc. complete.					
	Rates					
1)	0.5 MLD plant	---				
2)	1.5 MLD plant	---				

SECTION – J(II)
MOVING MEDIA
BIO REACTOR TECHNOLOGY

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
I	PROCESS DESCRIPTION - MOVING MEDIA BIO REACTOR TECHNOLOGY					
	The Moving Media Bio Reactor Technology is a advanced biological treatment process which has a combination of activated sludge process and attached growth process. The bio reactor has lot of packing material called carrier media in suspension and provides a large surface area for micro organisms to grow and degrade the organic matter in aerobic condition. Due to the use of carrier media, the higher concentration of bio mass is developed which helps to reduce the basin size, accept higher loading rates and take shock loads. The sewage after screening and grit removal flows by gravity into the BIO REACTOR wherein the attached growth, aerobic microbes will utilize pollutant in presence of oxygen thereby, further reducing BOD. The air required will be provided through coarse bubble air diffusers provided on the aeration grid at the bottom of reactor and using positive displacement, twin lobe, root type air blower for supply of oxygen. The PP media is provided in the aeration tank to allow the aerobic microbes to grow and get attached. This media remains in fluid state in the aeration tank thereby keeping large number of microbial colonies moving in the tank and provide high concentration					
	The dead bio mass generated will be separated in the CLARISSETTLER TANK wherein tube media is provided for providing additional surface area for settlement of bio mass and thereby reducing the space requirement.					
	The solid-liquid separation is achieved in this tank and clear supernatant will flow by gravity.					
	The treated wastewater will be disinfected with Chlorine and allowed to react in CHLORINE CONTACT TANK prior to suitable disposal.					
	A typical sketch of bio reactor showing various components is given below.					
	The MMBR / FAB Technology has following advantages over Conventional Systems like :					
1	Low on civil works					
2	Low space requirement					
3	Low on operating cost due to higher Oxygen Transfer Efficiency.					
4	Low on maintenance cost					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
5	Easy to operate with semi-skilled manpower					
6	Higher efficiencies in pollutant removal					
7	Effective removal of nitrates and phosphates					
8	Quick retrieval of system after shutdown / power failure					



II SPECIFICATIONS OF SEWAGE TREATMENT SCHEME

Raw Sewage Characteristics

Temperature Ambient
 pH 7.0 - 8.0
 Total Suspended Solids 210 mg/l
 BOD 5 days at 20° C 170 mg/l
 COD 340 mg/l
 Oil & Grease 30 mg/l
 MPN 10^6 to 10^7 per 100 ML

Treated Sewage Quality

pH 6.5 - 8.5
 Total Suspended Solids < 30 mg/l
 BOD < 20 mg/l
 COD < 100 mg/l
 Oil & Grease < 10 mg/l
 MPN < 1000 per 100 ML

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>Moving Media Bio Reactor (MMBR) / FAB (Fluidised Aerated Bed) Process</u> Designing, providing, constructing, hydraulic testing, commissioning and giving satisfactory trials of STP consisting of inlet chamber, screen chamber, grit separator, MMBR / FAB (based on technologies providing attached growth on plastic meddi kept suspended in the waste water due to low density of plastic and provided with compressed air for aeration with very high MLSS of greater than 15,000 mg/lit.) tank, secondary clari settler, sludge sump, sludge thickener, chlorine contact tank, chlorinator room/shed, sludge centrifuge, associated piping work with required valves, gates, drains, pathways, administration block cum laboratory, laboratory equipments, spare parts for 2 years of operation, etc. complete as turnkey job with all involved civil, electrical and mechanical works inclusive of following items, units as per detailed specifications for civil, electrical and mechanical components with all duties and taxes, etc. complete. Treated sewage can be used for irrigation, horticulture purposes.					
	<u>FOLLOWING UNITS ARE INCLUDED</u> <u>1. Inlet Chamber</u> Designing, providing and constructing RCC (M-25) inlet chamber designed for the peak flow including necessary excavation in all types of strata including walkway all around the periphery. Each compartment will have CI gates with extension rod, head stock, operating wheels, GI pipe railing, etc. The work includes providing and making necessary arrangements to connect the flow to screen chamber by approach channel as directed and as per specifications. <u>2. Screen Chamber</u> Designing, providing, constructing, testing and commissioning of screen chamber, designed for peak flow in RCC (M-25), including walkway 1.2 m wide with GI pipe.	1 No. 2 Nos				

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>3. Grit Separator</u> Designing, providing and constructing detritor type grit removal mechanism in RCC (M-25) capable of removing 100% 0.2 mm size particle and above, having specific gravity 2.30 designed for peak flow with suitable arrangement of separation of grit from putrescible solids including providing and making necessary arrangements of Jb-1. Inlet and outlet channels of required sizes as make be required to connect the flow to connecting unit, etc. complete including hydraulic testing for watertightness of structure having minimum FB of 0.3 m, washout arrangement to grit chamber and platform 1.2 m wide RCC walkway with GI pipe handling shall be provided. A pit for collecting grit conveyed by conveyor shall be provided. It should be suitable to handle the grit for carting. All arrangements shall be as detailed specifications and as directed.	2 No				
	<u>4. MMBR / FAB Tank</u> Designing, providing and constructing in RCC (M-25) biological reactor tank for removal of BOD along with nutrient removal to handle the average flow and having hydraulics suitable to handle peak flow conditions with suitable 1.2 m wide walkway, expansion joints as required, including foundation, etc as per specifications. The tank shall be equipped with inlet and outlet arrangement, air blowers for supply of air, coarse bubble diffusers and aeration grid in SS 304, PP carrier bio media, etc. FB of 0.5 m and SWD as required should be complete as per detailed specifications. <u>5. Secondary Clari Settler</u> Designing, providing and constructing in RCC (M-25) watertight secondary clari settler having SWD of 3.75 m + 0.5 m FB and has tube media in the clarification zone to provide additional surface area for settling. The settler shall be provided with a scraper mechanism in MS with epoxy painting for collecting the settled solids at the bottom (bottom slope 1:12). The central feed well shall be made of MS with epoxy painting from both faces and well stiffened. The sewage will be admitted in the feed well and then will move outwards towards	1 No. 1 No				

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>6. Chlorine Contact Tank</u> Designing, providing and constructing chlorine contact tank of adequate capacity to deal with average flow. The contact time provided is 30 mm to achieve 99.99% reduction in coliform during average flow condition. Chlorine dosage will be as per standard provisions including designing, providing and constructing water supply provision for chlorination, including providing dewatering and bypass arrangement for joining to final effluent mains and outlet weir, etc. complete. The effluent quality should match with the standards laid down by Maharashtra Pollution Control Board and as per obligatory provision and as detailed specification and as directed by Engineer-in-charge.	1 No.				
	<u>7. Chlorinator and Chlorinator Room / Tonner Room</u> Designing, providing and constructing vacuum type chlorinators having adequate capacity for dosage of adequate chlorine to ensure 99.99% coliform reduction as per obligatory provisions, detailed specifications with necessary provision of having chlorinator room of adequate size. The chlorinator equipment shall include chlorine cylinders / tonners, piping, valves, measuring, controlling equipments, safety devices, lifting equipment, etc. complete as per IS 10553 (Part II) 1982. The tonner room should have min. 3 MT capacity crane for loading and unloading facility. Tonner storage should be distinctly isolated and should have min. storage space as per the detailed specifications and as per gas law 1981 and factory act shall be provided. All other matching amenities shall be provided, 5 MT gantry rail shall be provided for full length of tonner room at 6 m ht. from level of tonner room with outlet.	1 No				

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>8. Sludge Sump</u> Designing, providing and constructing of sludge sump and pump for discharging sludge to sludge thickener using MS pipe, etc. complete as per detailed specification. <u>9. Sludge Thickener</u> Designing, providing and constructing watertight of sludge thickener - gravity type in RCC (M-25) with inlet and outlet pipes, central feed well, sludge it and sludge removal arrangement, grouting wherever necessary with walkway all around of 1.20 m with GI pipe railing interconnecting CI pipes all complete as per specifications, having bottom slope 1:8 and 3 m SWD with necessary fixed bridge scraper arrangement as per detailed specifications and necessary inlet and outlet arrangement, all other arrangement as per detailed specifications.					
	<u>10. Sludge Centrifuge Platform with Centrifuge</u> Designing, providing, constructing and installing including foundation, etc., sludge centrifuge to handle the sludge flow of 1 day in 18 hrs per unit with sludge dewatering unit, drain, etc complete is per specification. Sludge centrifuge with necessary arrangements as per detailed specification mentioned in tender and obligatory provisions to be provided with satisfactory functioning.	1 No				
	<u>11. Outfall Sewer</u> Designing, providing, constructing appropriate outfall sewer of RCC NP2 pipe to discharge treated effluent, untreated effluent from outlet chamber (after basin / chlorination tank) to the local Nallah at the point shown on the drawing including necessary chambers for inspection and cleaning including excavation, dewatering, refilling, concrete, encasing / bedding concrete.(after basin / chlorination tank) to the local Nallah at the point shown on the drawing including necessary chambers for inspection and cleaning including excavation, dewatering, refilling, concrete, encasing / bedding concrete.	1 No				

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>12. Piping Work in CI LA class including Sluice Valves, Reflux Valves, MS Gates</u> Providing, laying and jointing pipes other than those already included in the above items for interconnection, bypass drains, etc. of all units including adequate number of manhole chambers. The item includes excavations, refilling and hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials. The item includes required channels with gates or interconnection of units, bypass drains, etc. for all units as directed, etc complete as per detailed specifications.	Lot				
	<u>13. Administrative Building cum Laboratory (G+1)</u> Designing, providing and constructing administrative building, office cum laboratory including stores. This shall be building having appropriate carpet area, at ground floor and at first floor complete as per specifications including necessary excavation, foundation in RCC M-20 framed structure, BB masonry (IInd class in CM 1:6), 20 mm cement plaster in CM 1:3, inside and outside painting, aluminum door and window with glass panels, mosaic tile flooring and skirting and all other allied items, fixtures, fastening, electrification arrangement, water supply arrangement, etc complete. The building will have laboratory on upper floor of administrative building and should have complete control of every unit as per laboratory equipment, beautification, telephone and intercom arrangement and wireless system.					
III	<u>PRICE SCHEDULE</u> Capacity of the Plant in MLD Area required in Sqm.	Unit				
	1 450	MLD	156.20			
	3 600	MLD	92.40			
	5 1000	MLD	79.20			
	8 1500	MLD	72.60			
	10 1800	MLD	70.40			
	13 2500	MLD	63.80			
	15 2650	MLD	58.30			
	18 3250	MLD	57.20			
	20 3500	MLD	55.00			
	25 4350	MLD	52.80			

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	NOTES					
1	Screen chamber and grit separator upto 5 MLD capacity are manual type.					
2	Upto 5 MLD capacity STP, chlorination is done by using sodium hypochlorite solution. Above 5 MLD capacity, gas chlorinator is provided.					
3	Sludge thickener is not provided upto 3 MLD capacity STP. Sludge will be collected into sludge sump and pumped directly to sludge dewatering system.					
4	For all STP, sludge dewatering is using solid bowl centrifuge.					
5	Chlorinator room not provided for STP upto 3 MLD. For STP upto 3 MLD, laboratory / administration building is not provided. Only a room for operator is provided.					
6	Boundary wall, fencing, gate, storm water drains, site clearance is not considered in the scope.					
7	All water retaining structures are in M30 grade of concrete.					
8	Water table is considered 5 m below GL for design.					
9	Soil bearing capacity is considered as 20 T/m ² at 1.5 m below GL.					
10	Lead for excavation is considered as 0.5 km.					
11	Grade of cement used is OPC 43 grade.					
12	Grade of steel used is Fe 415.					
13	Peak factor considered for design for plants upto 3 MLD is 3, 4; upto 15 MLD is 2.5, 16; upto 20 MLD is 2.0.					
14	Chemicals required during trial run and commissioning are not considered.					
15	Water and power during construction, trial run and commissioning shall be provided by client.					
16	Power available at STP location is assumed as LT power supply.					
IV	MAKES OF EQUIPMENT					
No.	Description	Make				
1	Centrifugal Pumps	Kirloskar / Jhonson / Kishor /				
2	Screw Pumps	Roto / Tushaco / Eqv.				
3	Air Blower	Usha / Swam / Kay / Kulkarni /				
4	Dosing Pumps	Milton Roy / VK Pumps /				
5	Agitators / Flocculators	Pavan / Fibre & Fibre /				
6	Clarifier / Thickener Mechanism	To be fabricated as per MJP				
7	Screens	To be fabricated as per MJP				
8	Grit Separator	To be fabricated as per MJP				
9	Chlorinator	Toshcon Jesco / Banaco /				
10	Chlorine Tonner	Meenakshi / Eqv.				
11	Solid Bowl Centrifuge	Alfa Laval / Humbolt / Wedag /				
12	Motors	Crompton / Siemens / Lakshmi				
13	Cables	Finolex / Polycab				
14	MS pipes	Mahalakshmi Seamless /				
15	CI Pipes	Truform/ Electrosteel/ Kejriwal/				

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
16	Valves	Intervalve / BDK / Procon /				
17	Clarissettler Media	Cooldeck / Munters				
18	Bio Reactor Carrier Media	As per MJP approved design /				
A	<u>Cyclic Activated Sludge Process</u>					
	Designing, providing, constructing, hydraulic testing, commissioning and giving satisfactory trials of STP based on SBR technology consisting of Inlet Chamber, Screen Chamber, Detritus Tanks, Distribution Chamber and Biological CASP Basins, Sludge Sump, Chlorine Contact Tank, Chlorinator Room/Shed, Sludge Centrifuge necessary piping work with required valves, gates, drains, pathways Administration Block cum Laboratory, Laboratory Equipments, Tools and Plants, Spare Parts, etc. complete as turnkey job with all involved civil, electrical and mechanical works inclusive of following items, units as per detailed specification for civil, electrical and mechanical components with all duties and taxes, etc. complete to achieve BOD < 5 ppm, COD < 100 ppm, TSS < 10 ppm, to get recyclable quality of water for industrial / agricultural purposes. (In Case Cyclic activated sludge plant is designed for N, P outlet parameters shall also include TN < 10 ppm, Nh3N < 2 ppm and TP < 1 ppm)					
	<u>UNITS INCLUDED</u> <u>1. Inlet Chamber</u> Designing, providing, and constructing RCC (M-250) inlet chamber for the peak low of 2 DWF including necessary excavation in all types of strata including walkway all around the periphery. Each compartment will have phosphor bronze steel gates with extension rod, head stock, operating wheels, GI pipe railing, etc. The work includes providing and making necessary arrangements to connect the flow to screen chamber by approach channel as directed and as per specifications.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>2. Screen Chamber</u> Designing, providing, constructing, testing and commissioning of screen chamber, designed for average 1 DWF and maximum peak flow of 2 DWF in RCC (M-250), including inlet pipe / channel from inlet chamber, outlet pipe channel to detritus tank, free board of 0.5 m minimum, RCC walkway 1.2 m wide with GI pipe railing, RCC staircase of 1.2 m width from GL to screen chamber.					
	<u>3. Detritus Tank</u> Designing, providing and constructing continuous grit removal type Detritus Tank, mechanically operated in RCC (M-250) capable of removing 100% of 0.2 mm size particle and above, having specific gravity 2.30, designed for one peak 2 DWF with suitable arrangement of separation of grit from putrescible solids. Inlet and outlet channels of required sizes as may be required to connect the flow to connecting unit etc. complete including hydraulic testing for watertightness of structure having minimum FB of 0.3 m, washout arrangement to grit chamber and platform 1.2 m wide RCC walkway with GI pipe handling shall be provided. A pit for collecting grit conveyed by conveyor shall be provided. It should be suitable to handle the grit for carting. All arrangements shall be as detailed specifications and as directed.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	4. CASP Basins Designing, providing and constructing in RCC (M-250), CASP basins for biological removal of BOD along with nitrification, denitrification, Bio-P removal in compartments to handle combine flow of 1 DWF incoming flow and recirculation flow including construction of selector compartments and providing 1.2 m wide clear approach walkways, expansion joints wherever necessary, including foundations, etc as per specifications. Peak factor shall be 2, F/M ratio shall be 0.15, complete with air blowers, fine diffused aeration grid / equipment and FB 0.5 m and SWD as required. DO level in basin to be minimum 2 mg/l complete with 'Oxygen Uptake Rate' control system and all related instruments, stainless steel decanters and automation works. MLSS concentrations shall be 2000-5500 mg/l or more. MLVSS to MLSS ratio to be 0.8. HRT shall be between 12 to 13 hrs and SRT suitable for fully digested sludge. It should have all other related works as per detailed specification. In case CASP is designed to achieve N,P removal HRT shall be between 15-18 hrs and SRT shall be suitably provided to a.					
	5. Chlorine Contact Tank Designing, providing and constructing chlorine contact chamber of adequate capacity to deal with 1 DWF average flow. The chlorine contact tank should be 30 min capacity, during average flow to achieve 99.99% coliform reduction. Chlorine dose shall be maintained as per standard provisions, including designing, providing and constructing water supply provision for chlorination including providing dewatering and bypass arrangement, jointing to final effluent mains and outlet weir, etc . complete. The effluent quality should match with the standards laid down by Maharashtra Water Pollution Control Board and as per obligatory provision and as detailed specification and as directed by Engineer-in-charge.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>6. Chlorinator and Chlorinator Room /Tonner Room</u> Designing, providing and constructing chlorinators vacuum type 2 Nos. with auto switchover facility and having capacity for dosage of adequate chlorine to ensure 99.99% coliform reduction as per obligatory provisions and detailed specifications with necessary provision of having chlorinator room of adequate size. The chlorinator equipment shall include cost of chlorine cylinders / tonner piping, valves, measuring and controlling equipments, safety devices, lifting equipments, etc. complete as per IS-10553 (Part II) 1982. The tonner room should have minimum 3 MT capacity hoist for loading and unloading facility. Tonner storage should be distinctly isolated and should be for minimum storage space as directed in the design specification and as per Gas Laws 1981 and Factory Act shall be provided. All other matching amenities shall be provided.					
	5 MT gantry rail shall be provided for full length of tonner room at 6 m height from level of tonner room, with outlet chamber and treated effluent outlet channel, etc. complete as per detailed specification.					
	<u>7. Sludge Sump</u> Designing, providing and constructing of sludge sump and pump house of appropriate size with pumps, ceiling height minimum 6 m over sump for discharging sludge to centrifuge using CI pipe, etc. complete as per detailed specification.					
	<u>8. Sludge Centrifuge Platform withCentrifuges</u> Designing, providing, constructing and installing including foundation etc., sludge centrifuge to handle the sludge flow of 1 day in 20 hours per unit with sludge dewatering unit, drain etc. complete as per specification. Sludge centrifuges with the necessary arrangement, as per detailed specification mentioned in tender and obligatory provisions to be provided with satisfactory functioning.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	<u>9. Outfall Sewer</u> Designing, providing and constructing appropriate outfall sewer of RCC NP2 pipe, to discharge treated effluent from outlet chamber after chlorination tank to the local nallah at the point shown on the drawing including necessary chamber for inspection and cleaning including necessary excavation, dewatering, refilling, concrete encasing / bedding concrete steps to reach the nallah bed level, pitching and energy dissipation chamber in nallah portion, etc. complete upto 50 m length RCC NP2 pipe line and including all above items.					
	<u>10. Piping Work in CI-LA class including Sluice Valves, Reflux Valves, MS Gates</u> Providing, laying and jointing pipes other than those already included in the above items for interconnection, bypass drains, etc. of all units including adequate number of manhole chambers. The item includes excavations, refilling and hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials. The items includes required channels with gates for interconnection of units, bypass drains, etc. for all units as directed, etc complete as per detailed specifications.					
	<u>11. Administrative Building cum Laboratory (G+1)</u> Designing, providing and constructing administrative building, office cum laboratory including stores. This shall be a building having appropriate carpet area at ground floor and at first floor complete as per specifications including necessary excavation, foundation in RCC M-200 framed structure BB masonry (IInd class in C.M. 1:6), 20 mm cement plaster in CM 1:3 inside and outside painting. Aluminium door and window with glass panels, mosaic tile flooring and skirting and all other allied items, fixtures, fastening, electrification arrangement, water supply arrangement, etc. complete.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	The building will have laboratory on upper floor of administrative building and should be so centralized that it should not be attached with any unit but should have complete control of every unit as per laboratory equipment, beautification, telephone and intercom arrangement and wireless system.					
	Capacity of Plant in MLD , Area required in Ha., No. of Basins	Unit				
	1 0.16 2	MLD	326.00			
	2 0.20 2	MLD	218.00			
	5 0.40 2	MLD	137.00			
	10 0.70 2	MLD	112.00			
	15 0.75 2	MLD	100.00			
	20 0.80 4	MLD	95.00			
	25 1.00 4	MLD	91.00			
	30 1.20 4	MLD	86.00			
	40 1.60 4	MLD	81.00			
	50 1.75 4	MLD	79.00			
	60 1.90 4	MLD	77.00			
	75 2.25 4	MLD	75.00			
	100 2.40 6	MLD	72.00			
	125 3.00 6	MLD	70.00			
	150 3.50 6	MLD	68.00			
	NOTES					
a	These Rates are for Civil Works, in M30 grade RCC.					
b	Water Table is considered at 5 m below ground level.					
c	Soil bearing capacity considered as 20 T/m ² at 1.5 m below ground level.					
d	OPC has been considered for costing purposes.					
e	All civil items, electrical, piping, valves, pumps, motors, blowers, etc. are considered as per MJP Schedule of Rates.					
f	I.Nos.1, 2 include sludge drying beds instead of sludge centrifuge and DWPE dosing system.					
g	I.Nos.1, 2, 3 include NaOCl dosing system instead of Gas Chlorination.					
h	I.Nos.1, 2, 3 do not include Lab and Lab Equipments.					

SECTION – K(I)
RCC GSRS AND SUMPS

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	<u>Designing (aesthetically), and constructing RCC ground service reservoirs / RCC sumps in M-300 mix</u> of required capacity including excavation in all types of strata, foundation concrete, container walls, bottom slab top RCC roof slab / or dome, 20 mm thick cement plaster with water proofing compound in CM 1:3 proportion to inside face of the container, including epoxy paint from inside including refilling and disposing of surplus stuff within lead of 50 M, all labour and material charges, for laying and jointing of pipe assembly for inlet, outlet washout, over flow and bypass arrangement consisting of C.I. M.S. D/F. pipes, specials and valves of given diameters, providing and fixing accessories such as M.S. ladder inside and outside, C.I. Manhole frame and cover, water top slab, B.B. masonry chamber for all valves, ventilating shafts, including giving satisfactory hydraulic test and water tightness test as per IS code and providing three coats of cement paints to all exposed surface of structure including roof surface etc. complete as per design data, criteria, obligatory requirements and detailed specifications. Anti-termite treatment shall be given for underground portion of the structure.					
	Notes					
1)	The design shall be in accordance with various relevant I.S. specification (I.S. 456/1978, I.S. 875 - 1987, I.S. 3370 - 1965 or revised.)					
2)	Only M.S. bars grade I conforming to I.S. 432 part-I or high yield strength deformed bars conforming to I.S. 1786 or I.S. 1139 shall be used. Grade -II M.S. bars shall not be used.					
3)	Entire structure shall be in M-300 only.					
4)	The scope of pipe assembly work shall be upto 5 metre beyond outside face of the wall, cost of pipes valves and specials is not included in the rate but labour cost for laying and jointing is included.					
5)	The G.S.R. / Sump above 15 lakh litres capacity shall be in two compartment.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
6)	The Job includes designing the structure for uplift pressure and dewatering if required during entire execution and disposal of surplus excavated stuff within lead of 50 metres as directed by Engineer-in-charge. If uplifts considered in design, then these rates shall be increased by 7.5%.					
7)	G.S.R. outlets shall be with bell mouth of approved pattern in bottom slab and cost of designing bell mouth is included in the rate. Sump well includes cost of suction pit required at bottom.					
8)	For pipe diameters upto 300 mm only CI pipes and CI specials shall be used. For pipe diameters above 300 mm, M.S. pipes and specials minimum 10 mm thick shall be used with proper anticorrosive epoxy treatment from inside and outside.					
9)	Cost of pump house is not included in these rates.					
10)	Above rates are applicable for Seismic Zones 2, 3 and 4.					
11)	75% part rate shall be payable for reinforcement, concrete and plastering items of all types of G.S.R.s and sumps till satisfactory hydraulic testing for water tightness test is given and till that work shall be treated as incomplete.					
	Note : Conditions from Sr. No. 1 to 11 shall form a part and parcel of tender and must be included in the draft tender papers for work of R.C.C. GSRs and sumps.					
	<u>Rates for RCC GSRs and Sumps</u>		Rate in Rs.	Rate in Rs.		
1)	Upto 25,000 litres	Lit	13.11	5.24		
2)	Cost of 25,000 litres capacity	Job	327701	131080		
3)	Add for capacity above 25,000 upto 50,000 litres	Lit	7.61	3.05		
4)	Cost of 50,000 litres capacity	Job	517970	207188		
5)	Add for capacity above 50,000 upto 75,000 litres	Lit	6.34	2.53		
6)	Cost of 75,000 litres capacity	Job	676484	270594		
7)	Add for capacity above 75,000 upto 1,00,000 litres	Lit	5.71	2.29		
8)	Cost of 1,00,000 litres capacity	Job	819253	327701		
9)	Add for capacity above 1,00,000 upto 1,50,000 litres	Lit	5.39	2.16		
10)	Cost of 1,50,000 litres capacity	Job	1088779	435511		
11)	Add for capacity above 1,50,000 upto 2,00,000 litres	Lit	5.07	2.03		
12)	Cost of 2,00,000 litres capacity	Job	1342507	537003		

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
13)	Add for capacity above 2,00,000 upto 3,00,000 litres	Lit	4.44	1.78		
14)	Cost of 3,00,000 litres capacity	Job	1786344	714538		
15)	Add for capacity above 3,00,000 upto 5,00,000 litres	Lit	3.80	1.52		
16)	Cost of 5,00,000 litres capacity	Job	2547209	1018883		
17)	Add for capacity above 5,00,000 upto 10,00,000 litres	Lit	3.12	1.25		
18)	Cost of 10,00,000 litres capacity	Job	4106938	1642775		
19)	Add for capacity above 10,00,000 upto 15,00,000 litres	Lit	2.59	1.04		
20)	Cost of 15,00,000 litres capacity	Job	5400448	2160179		
21)	Add for capacity above 15,00,000 litres	Lit	1.91	0.77		
	Note : 10% shall be added over the cost of GSR for sump where overhead pump house is proposed.					

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SECTION – K(II)

RCC ESRS

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	<u>Designing (aesthetically), and constructing RCC elevated service reservoirs</u> of following capacity with RCC staging consisting of columns, internal and external bracings spaced vertically not more than 4.5 metres centre to centre for ESR having capacity upto 500 cum and not more than 6 m c/c for ESRs having capacity above 500 Cum including excavation in all types of strata, foundation concrete, cement plaster with water proofing compound to the inside face of the container including refilling disposing off the surplus stuff within a lead of 50 metres, all labour and material charges including lowering, laying, erecting, hoisting and jointing of pipe					
	assembly of inlet, outlet, washout, overflow and bypass arrangements as per departmental design, providing and fixing accessories such as M.S. ladder, C.I. manhole frame and covers, water level indicators, lightening conductor, G.I. pipe railing around walk way and top slab, providing spiral stair case from ground level to roof level, M.S. grill gate of 2 M height with locking arrangement of approved design, B.B. masonry chambers for all valves, ventilating shafts, providing and applying three coats of cement paint to the structure including roof slab, epoxy painting to internal surface and anti-termite treatment for underground parts of the structure and giving satisfactory water tightness test as per I.S. code. The job to include painting the name of the scheme and other details on the reservoir as per the directions of Engineer-in-Charge.					
	Notes					
1)	The design of the structure be in accordance with relevant I.S. specification (I.S. 3370 - 1965 or revised.)					
2)	The design shall satisfy the stipulations as per I.S. 1893 - 1984 and I.S. 13920 / 1993 for seismic force and I.S. - 11682 / 1985 for R.C.C. staging of overhead tanks.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
3)	For design having more than 6 columns, provision of internal bracing is obligatory. External bracings is also obligatory.					
4)	The entire structure shall be in M-300 mix only.					
5)	Plain round mild steel bars grade-I conforming to I.S. 432 part-I or high yield strength deformed bars conforming to I.S. 1786 or I.S. 1139 shall be used, grade-II mild steel bars will not be allowed.					
6)	Irrespective of the type of foundation proposed in the design, one set of bracing be provided at the ground level.					
7)	These rates include providing M.S. ladder for E.S.R.s upto 2 lakh litres capacity and providing spiral staircase for E.S.R. above 2 lakh litres capacity.					
8)	Staging shall have to be designed with stresses of M-200 concrete for ESR. However all RCC construction should be done in M-300.					
9)	These rates are including the cost of uplift pressure if any and entire dewatering during execution. In case of water logging area where water is stretch at shallow depth, extra provision of dewatering shall be made as per site condition.					
10)	All conditions given in the Member Secretary's Circular No. MJP / TS-I / 350 / 1668 dt. 2-8-97 and MJP / S-I / 350 / 2127 dt. 13-7-99 shall be strictly followed and additional cost, if any, due to these conditions is included in the rates mentioned below.					
11)	75% part rate shall be payable for reinforcement concrete and plastering items of containers of E.S.R. till satisfactory hydraulic testing for water tightness is given; and till that work shall be treated as incomplete.					
12)	The rates indicated in the table are excluding the cost of pipes, specials and valves required for inlet, outlet, washout, overflow and bypass arrangement. The scope of work, however, includes cost of erecting, laying and jointing of pipes and valves including cost of jointing materials upto 5 M beyond outer face of outermost column.					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
13)	For ESR upto 500 cum capacity C.I. double flanged pipes upto 300 mm dia shall be provided and C.I. specials shall be used. For ESR above 500 cum capacity C.I./M.S. pipe assembly with minimum 8 mm thickness upto 500 mm dia and minimum 10 mm thickness above 500 mm dia can be used with proper anti-corrosive epoxy treatment from inside and outside.					
14)	Below mentioned rates are for foundations with individual footing with bearing capacity of 20 tonnes per square metre. For raft foundations, these rates shall be increased by 7.5% where safe bearing capacity (SBC) is 5 MT per sqm and by 5% where SBC is more than 5 MT/sqm and upto 10 MT/sqm. This % of 5% or 7.5% is applicable for estimation of amount of lumpsum item of ESR. For extra item due to change from individual foundation to raft, actual increase in concrete and steel be paid as per relevant DSR item.					
15)	The rate shall be increased by 30% for bearing piles upto depth of 10 M and for further increased in depth by 5 M each, it shall be increased by another 10%. These rates are applicable where raft is not feasible. For pile foundations sulphate resistant cement shall only be used. Single pile for the column is not permitted, group of piles shall be designed with pile cap for each column of ESR.					
16)	The rates are applicable for staging height of 12 M. These rates shall be increased or decreased for per metre variation in this staging height as below					
	12 to 16 M staging - 2% per metre					
	16 to 20 M staging - 3% per metre					
	20 M and above - 4% per metre					
	For 17 M staging height, percentage calculation will be like below :					
	12 to 16 M --- $4 \times 2 = 8\%$					
	16 & 17 M --- $1 \times 3\% = 3\%$ Total = 11%					
	For 21 M staging height, percentage calculation will be like below :					
	12 to 16 M --- $4 \times 2 = 8\%$					
	16 to 20 M --- $4 \times 3\% = 12\%$					

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	20& 21 M --- 1 x 4% = 4% Total = 24%					
17)	Following rates are for seismic zone III. For zone IV, these rates shall be increased by 5% and for zone II, these rates shall be decreased by 5%. Concerned Executive Engineer shall confirm the seismic zone for the scheme from seismic zones plan before estimation and adopt appropriate rates as per actual seismic zones. (Seismic maps attached in this CSR).					
	Notes					
1)	Conditions from Sr. No. 1 to 11 shall form a part and parcel of the tender and must be included in the draft tender papers for works of R.C.C. E.S.R.					
2)	Conditions from Sr. No. 12 to 17 are for estimation purpose only and shall not appear in the tender.					
	Rates for RCC ESRs		Rate in Rs.	Rate in Rs.		
1)	Upto 25,000 litres	Lit	26.12	10.45		
2)	Cost of 25,000 litres capacity	Job	653054	261222		
3)	Add for capacity above 25,000 upto 50,000 litres	Lit	13.83	5.53		
4)	Cost of 50,000 litres capacity	Job	998902	399561		
5)	Add for capacity above 50,000 upto 75,000 litres	Lit	10.38	4.15		
6)	Cost of 75,000 litres capacity	Job	1258286	503315		
7)	Add for capacity above 75,000 upto 1,00,000 litres	Lit	9.22	3.69		
8)	Cost of 1,00,000 litres capacity	Job	1488851	675157		
9)	Add for capacity above 1,00,000 upto 1,50,000 litres	Lit	8.07	3.23		
10)	Cost of 1,50,000 litres capacity	Job	1892340	756936		
11)	Add for capacity above 1,50,000 upto 2,00,000 litres	Lit	6.92	2.76		
12)	Cost of 2,00,000 litres capacity	Job	2238188	895275		
13)	Add for capacity above 2,00,000 upto 2,50,000 litres	Lit	5.76	2.30		
14)	Cost of 2,50,000 litres capacity	Job	2526394	1007218		
15)	Add for capacity above 2,50,000 upto 3,00,000 litres	Lit	5.76	2.30		
16)	Cost of 3,00,000 litres capacity	Job	2814600	1125840		
17)	Add for capacity above 3,00,000 upto 4,00,000 litres	Lit	5.76	2.30		
18)	Cost of 4,00,000 litres capacity	Job	3391012	1356405		
19)	Add for capacity above 4,00,000 upto 5,00,000 litres	Lit	4.61	1.84		
20)	Cost of 5,00,000 litres capacity	Job	3852141	1540856		
21)	Add for capacity above 5,00,000 upto 7,50,000 litres	Lit	4.61	1.84		
22)	Cost of 7,50,000 litres capacity	Job	5004966	2001986		
23)	Add for capacity above 7,50,000 upto 10,00,000 litres	Lit	4.61	1.84		

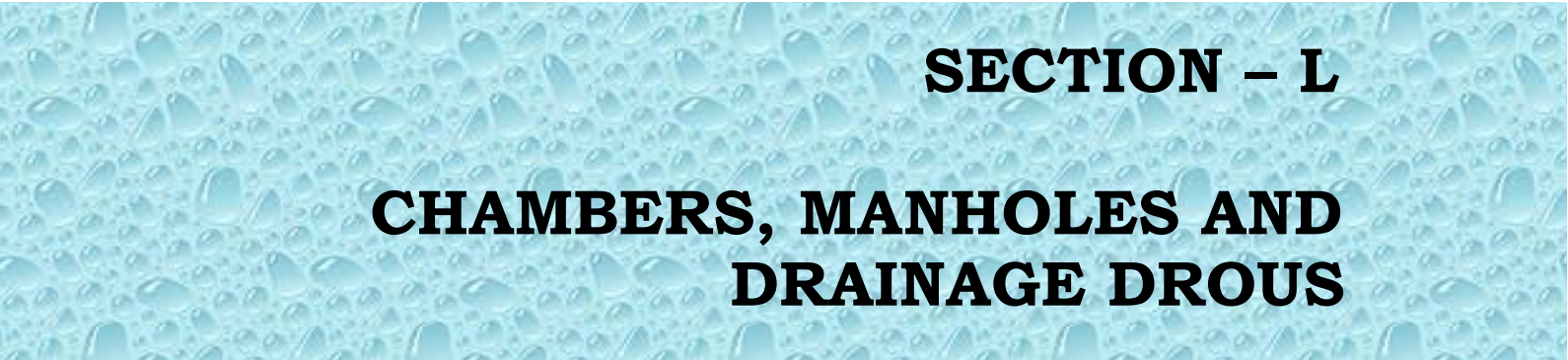
Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
24)	Cost of 10,00,000 litres capacity	Job	6157790	2463116		
25)	Add for capacity above 10,00,000 upto 15,00,000 litres	Lit	4.61	1.84		
26)	Cost of 15,00,000 litres capacity	Job	8463439	3385376		
27)	Add for capacity above 15,00,000 upto 20,00,000 litres	Lit	3.46	1.38		
28)	Cost of 20,00,000 litres capacity	Job	10192675	4077070		
29)	Add for capacity above 20,00,000 upto 25,00,000 litres	Lit	---	---		
30)	Cost of 25,00,000 litres capacity	Job	---	---		

SECTION – K(III)
**ANCILLARY ITEMS FOR
RESERVOURS**

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	<u>Providing and fixing in position copper lightening conductor</u> including copper rod of 20 mm dia as per upper terminal 1.5 M long with a knob at end and with conical spike at top, copper tape conductor 20 x 3 mm size, copper earth plate of 3 mm thick and 0.81 sqm. in area, clamps at 1 M centre to centre including, necessary excavation, laying and fixing the conductor, providing and fixing 40 mm G.I. pipe upto 3 M height from ground and 0.5 M below ground including making all connections, filling earthing pit with charcoal, salt, etc. & refilling & watering, etc. complete as per specifications laid down in relevant I.S. codes.					
i)	For tape of 10 M length	No	12873.00			
ii)	Rebate/ extra rate per metre length or part thereof over and above initial length of 10 M.	Mtr.	312.00			
2	<u>Providing and fixing in position copper lightening conductor</u> including copper rod of 20 mm dia upper terminal 1.5 M long with a knob at the end with a conical spike at top, aluminium tape conductor 20 x 3 mm size, copper earth plate of 3 mm thick and 0.81 sqm. in area, clamps at 1 M centre to centre including, necessary excavation, laying and fixing the conductor, providing and fixing 40 mm G.I. pipe upto 3 M height from ground and 0.5 M below ground including making all connections, filling earthing pit with charcoal, salt, etc. & refilling & watering, etc. complete as per specifications laid down in relevant I.S. codes.					
i)	For tape of 10 M length	No	11290.00			
ii)	Rebate/ extra rate per metre length or part thereof over and above initial length of 10 M.	Mtr.	88.00			
3	<u>Providing, hoisting and fixing in position inverted 'J' type 100 mm dia</u> C.I. cowl type ventilators with mosquitoproof aluminium mesh at top in including applying 2 coats of anti-corrosive paint, etc. complete as directed by Engineer-in-charge, weighing not less than 35 kg.					
		No	2118.00			
4	<u>Providing, hoisting and fixing in position C.I. manhole, frame and cover</u> of best quality and of required size and shape with locking arrangements including applying 2 coats of anti-corrosive paint, etc. complete.					
i)	90 x 60 cm size and weight 35 kg.	No	2796.00			

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
ii)	Rate on weight basis for any size and type of frame and cover.	Kg	80.00			
5	<u>Providing and fixing in position M.S. ladder 0.50 M wide</u> consisting of 75 x 10 mm M.S. flats as stringers and 16 mm dia M.S. bars in double rows as steps placed at 25 cm c/c including cost of material and labour involved, welding, anchoring and applying 3 coats of anticorrosive paint, etc. complete as directed by Engineer-in-charge.	RMT	1345	309.00		
6	<u>Providing and applying epoxy paint of approved make</u> (Shalimar, Ciba or Mahindra & Mahindra) to concrete surface for RCC ESR or GSR or any other structure including cleaning the surface by scrapping and air blowers to the satisfaction of Engineer-in-charge, necessary scaffolding, etc. complete with all leads and lifts and giving satisfactory hydraulic test for water tightness as per I.S. codes.					
i)	For new surfaces - Two coats	Sqm	657			
ii)	For old surfaces - Two coats	Sqm	722			
7	<u>Providing and constructing RCC spiral staircase</u> in M-150 mix concrete at site of work and consisting of central vertical column of 400 mm dia and steps in RCC M-150, tie members at each brace level, RCC parapet wall 80 cm high including cost of all labour and material involved, cost of scaffolding, centering, shuttering, curing, finishing in CM 1:3 proportion including RCC M-150 footing foundation, its excavation, refilling and cleaning the site, etc. complete as per type design, with 3 coats of cement paint.	RMT	5743	384.00		
8	<u>Providing and constructing RCC ventilating shaft</u> of diameters and height mentioned below with required number of RCC 15 x 15 cm size columns and RCC circular slab or dome over the pillars in M-150 including cost of all material and labour, providing and fixing steel or wooden frame and providing and fixing G.I. flyproof mesh of 26 gauge and providing and applying in 3 coats of oil paint to wooden or steel frame and cement paint to concrete structure, etc. complete as directed by Engineer-in-charge.					
i)	0.9 M dia x 1.35 M height	No	4769	555.75		
ii)	1.2 M dia x 1.80 M height	No	6177	719.23		
iii)	1.5 M dia x 2.25 M height	No	9214	1077.28		

Sr. No.	Description	Unit	Rate (Rs.) 2019-2020		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
9	Providing and installing mercury water level indicator for RCC ESR and wash water tank site as per instructions of Engineer-in-charge at ground level of the tank or nearing pump house or room for RCC ESR having 15 mtrs. stage height and 5 mtrs. water storage height with indication of water height in storage tank in metre and 1/10th of metre including providing and installing 15 mm dia class 'B' G.I. piping with necessary accessories from bottom of the tank upto the instrument as per instructions of Engineer-in-charge.	No	19246.00			
	For extra stage height over 15 mtrs. or part thereof and water depth over 5 mtrs. or part thereof for Item No. 9.	Mtr.	1026.00			
10	<u>Providing, erecting, installing and commissioning Barometric leg chlorination system for water treatment plant upto 5 MLD capacity</u> as per manufacturer's specification with all required materials viz. 15 kg. pressure yellow PVC pipe, specially prepared chamber, mixing chamber, scrubber unit, gas pressure flexible pipe, brass nozzle nipple, electronic alarm unit, PPM dose, indicator of 25 mm dia, 4 mm thick glass tube borosil, gas unit opening spanner 3 hole type, instruction board, aluminium pipe upto sump (max. length 15 M) including civil works wherever required for above materials, fittings, including satisfactory test and trial at work site, etc. complete. (Item do not include construction of chlorine gas room of 3.0 x 3.0 M or adequate size) as per drawing attached.					
i)	For 5.0 Mld capacity	No	122472			
ii)	Add / deduct per Mld or part of per Mld capacity	Mld	4286			
11	<u>Providing and fixing water level indicator upto 5 M height</u> including M.S. enamelled gauge plate 300 mm wide and 3 mm thick, copper float, providing and fixing required accessories such as pointer, pulleys, nylon thread including cost of all material, labour, etc. complete.	No	9418.00			
12	<u>Providing and fixing water level indicator upto 5 M height</u> including M.S. enamelled gauge plate 150 mm wide and 3 mm thick, copper float, providing and fixing required accessories such as pointer, pulleys, nylon thread including cost of all material, labour, etc. complete.	No	5710.00			

A decorative horizontal band with a blue background and a pattern of white water droplets of various sizes.

SECTION – L

CHAMBERS, MANHOLES AND DRAINAGE DROUS

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	<u>Valve Chamber with Precast RCC Covers</u> Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in CM 1:5 proportion precast RCC frame and cover, etc. complete as directed by Engineer-in-charge.					
	Note : Wall thickness : 0.23 M for depth of 1.2 M and 0.35 M for balance depth exceeding 1.2 M.					
A	As above of 60 x 45 cm internal size and depth upto 0.9 M with precast R.C.C. slab cover.	No	5832.00	1382.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1268.00	337.00		
B	As above of 90 x 45 cm internal size and depth upto 1.2 M with precast R.C.C slab cover.	No	8630.00	2071.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1510.00	403.00		
C	As above of 90 x 60 cm internal size and depth upto 1.2 M with precast R.C.C slab cover.	No	9382.00	2283.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1637.00	442.00		
D	As above of 90 x 90 cm internal size and depth upto 1.2 M with precast R.C.C slab cover.	No	11231.00	2734.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1892.00	517.00		
E	As above of 90 cm internal dia. size and depth upto 1.2 M with precast R.C.C slab cover.	No	8510.70	2096.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1468.50	402.00		
F	As above of 1.2 x 1.2 M internal size and depth upto 1.2 M with precast R.C.C slab cover.	No	15044.00	3667.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2404.00	669.00		
G	As above of 1.5 x 1.5 M internal size and depth upto 1.5 M with precast R.C.C slab cover.	No	22020.00	5506.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2965.00	843.00		

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
2	<u>Valve chamber with cast iron manhole frame and covers</u> Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in CM 1:5 proportion, 12 mm thick cement plaster in CM 1:4 proportion on both sides with providing and fixing C.I. manhole frame and cover in RCC 1:2:4 coping or RCC 1:2:4 proportion x 15 cm thick slab, etc. complete as directed by Engineer-in-charge.					
	Note : Wall thickness : 0.23 M for depth of 1.2 M and 0.35 M for balance depth exceeding 1.2 M.					
A	As above of 60 x 45 cm internal size and depth upto 0.9 M with 60 x 45 cm size CI manhole frame and cover of 40 kg.	No	8768.00	1466.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1268.00	337.00		
B	As above of 90 x 45 cm internal size and depth upto 1.2 M with 90 x 45 cm size CI manhole frame and cover of 40 kg.	No	11366.00	2139.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1511.00	402.00		
C	As above of 90 x 60 cm internal size and depth upto 1.2 M with 90 x 60 cm size CI manhole frame and cover of 50 kg.	No	12932.00	2346.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1637.00	442.00		
D	As above of 90 x 90 cm internal size and depth upto 1.2 M with 53 cm dia CI manhole frame and cover of 90 kg. fixed in RCC slab.	No	17723.00	2918.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1892.00	517.00		
E	As above of 1.2 x 1.2 M internal size and depth upto 1.2 M with 53 cm dia CI manhole frame and cover of 90 kg. fixed in RCC slab.	No	20862.00	3703.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2408.00	670.00		
F	As above of 1.5 x 1.5 M internal size and depth upto 1.5 M with 53 cm dia CI manhole frame and cover of 90 kg. fixed in RCC slab.	No	27167.00	5382.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2965.00	843.00		

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
3	<u>Valve chamber with precast steel fibre reinforced concrete frame and covers (S.F.R.C. frame and covers)</u> Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in CM 1:5 proportion precast S.F.R.C. frame and cover, etc. complete as directed by Engineer-in-charge.					
	Note : Wall thickness : 0.23 M for depth of 1.2 M and 0.35 M for balance depth exceeding 1.2 M.					
A	As above of 60 x 45 cm internal size and depth upto 0.9 M with S.F.R.C. frame and cover.	No	8555.00	2039.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1268.00	301.00		
B	As above of 90 x 45 cm internal size and depth upto 1.2 M with S.F.R.C. frame and cover.	No	12156.00	2898.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1511.00	360.00		
C	As above of 90 x 60 cm internal size and depth upto 1.2 M with S.F.R.C. frame and cover.	No	13378.00	3189.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1637.00	389.00		
D	As above of 90 x 90 cm internal size and depth upto 1.2 M with S.F.R.C. frame and cover.	No	15379.00	3667.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	1891.00	451.00		
E	As above of 1.2 x 1.2 M internal size and depth upto 1.2 M with S.F.R.C. frame and cover of size 540 mm dia. fixed in RCC slab.	No	18825.00	4488.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2402.40	572.00		
F	As above of 1.5 x 1.5 M internal size and depth upto 1.5 M with S.F.R.C. frame and cover of size 540 mm dia. fixed in RCC slab.	No	25490.00	6075.00		
a)	Add for every increase in depth of 30 cm or part thereof	30 cm depth	2696.00	706.00		

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
4	Providing and fixing in position <u>M.S. air valve boxes fabricated</u> with 2 mm thick M.S. plate, 30 x 30 x 3 mm size M.S. angle frame, concreting in M-150 for fixing the box in position, applying two coats of oil paint, painting chainage, locking arrangement, etc. complete as directed by Engineer-in-charge.					
a)	For single ball air valve	No	2198.00	56.00		
b)	For double ball air valve	No	2374.00	307.00		
5	Providing and fixing <u>C.I. road box</u> including loading, unloading and carting to site of work including all necessary excavation in all types of strata and fixing in murum packing, etc. complete.					
a)	100 mm x 225 mm (20 kg)	No	1460.00	348.00		
b)	225 mm x 300 mm (40 kg)	No	2725.00	649.00		
6	Providing and constructing on sewer, <u>B. B. masonry circular manhole with concentric cone 1.2 M dia. at bottom and 0.5 M dia. at top</u> and upto a depth of 2.00 M with 23 cm brick work in CM 1:4 proportion excluding excavation including foundation concrete 250 mm thick and haunches and channels in C. C. 1:2:4 proportion, finishing channels in smooth rendering, providing C.I. dapuri type steps each weighing 5.5 kg., 1:2:4 coping and providing and fixing approved make and quality S.F.R.C. frame and cover of 56 cm dia. etc. complete as directed by Engineer-in-charge.	No	23271.00	5546.00		
a)	Rebate for every decrease in depth of 50 cm (Rebate to be taken in proportionate to decrease in depth)	50 cm depth	3447.00	747.00		
7	Providing and constructing on sewer, <u>B. B. masonry circular manhole concentric cone 1.5 M dia. at bottom and 0.5 M dia. at top</u> and upto a depth of 5.00 M with 23 cm brick work, upto depth of 2 M from top and 35 cm thick brick work for balance depth in CM 1:4 proportion with 20 mm thick smooth plaster on both sides in CM 1:2 proportion excluding excavation including foundation concrete 250 mm thick and haunches and channels in C. C. 1:2:4 proportion, finishing channels in smooth rendering, providing C.I. dapuri type steps each weighing 5.5 kg., 1:2:4 coping and providing and fixing approved make and quality S.F.R.C. frame and cover of 56 cm dia. etc. complete as directed by Engineer-in-charge.	No	69528.00	1769.00		
a)	Rebate for every decrease in depth of 50 cm (Rebate to be taken in proportionate to decrease in depth)	50 cm depth	7127.00	1701.00		

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
8	Providing and constructing on sewer, B.B. masonry circular manhole with concentric cone 1.5 M dia. at bottom and 0.5 M dia. at top and upto a depth of 9.00 M with 23 cm brick work, upto depth of 2 M from top and 35 cm thick brick work for depth of 2 M and 45 cm thick brick work for remaining depth upto 9 M in CM 1:4 proportion with 20 mm thick smooth plaster on both sides in CM 1:2 proportion excluding excavation including foundation concrete 250 mm thick and haunches and channels in C.C. 1:2:4 proportion, finishing channels in smooth rendering, providing C.I. dapuri type steps each weighing 5.5 kg., 1:2:4 coping and providing and fixing approved make and quality S.F.R.C. frame and cover of 56 cm dia. etc. complete as directed by Engineer-in-charge.	No		0.00		
a)	Rebate for every decrease in depth of 50 cm (Rebate to be taken in proportionate to decrease in depth)	50 cm depth				
9	Providing and constructing B.B. masonry circular manhole without conical shape excluding excavation, RCC 1:2:4 proportion, 20 cm bedding brick masonry in CM 1:4 proportion, 23 cm thick for 2 M depth from top 35 cm thick for 2 M below it and 45 cm thick for balance depth, RCC slab at top and at 2 M depth from top for supporting brick masonry above it, plastering with smooth finish in CM 1:2 proportion, C.C. 1:2:4 finishing channels in smooth rendering, providing C.I. dapuri type steps each weighing 5.5 kg., providing and fixing S.F.R.C. frame and cover of 56 cm dia. at top including cost of all materials and labour, etc. complete.					
A	1.00 M dia. x 2 M depth	No	20659.00	4926.00		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	3015.00	717.00		
B	1.00 M dia. x 3 M depth	No	38014.00	9063.00		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	6137.00	1464.00		
C	1.00 M dia. x 4.5 M depth	No	59778.00	14252.00		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	7867.00	1875.00		
D	1.50 M dia. x 2 M depth	No	37874.00	9029.00		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	5352.00	1275.00		
E	1.50 M dia. x 3 M depth	No	51570.00	12294.00		

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	8097.00	1930.00		
F	1.50 M dia. x 4.5 M depth	No	80153.00	1912.00		
a)	Rebate for every decrease in depth of 50 cm or part thereof	50 cm depth	10310.00	2458.00		
10	<u>Drainage Drops</u> Providing 150 mm dia. S.W. or R.C.C. pipes in <u>vertical drop arrangement</u> including providing 150 mm dia S.W. and R.C.C. pipe fixed in B.B. masonry of manhole at the required level including providing 150 mm dia double tee, 150 mm dia right angled bend, encasing in B.B. masonry 1:4 proportion all around the pipe, double tee, bend upto the foundation of manhole, jointing, cutting, filleting including neat cement rendering, plugging the opening with jungle wood knob complete as directed by Engineer-in-charge (0.60 M depth) excluding cost of chamber.		1921.00			
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	734.00	118.00		
11	As above but for 200 mm dia pipes and depth 0.60 M	No	2478.00	416.00		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	802.00	135.00		
12	As above but for 250 mm dia pipes and depth 0.60 M	No	3078.00	506.00		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	927.00	223.00		
13	As above but for 300 mm dia pipes and depth 0.60 M	No	3750.00	618.00		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	1041.00	249.00		
14	As above but for 400 mm dia pipes and depth 0.60 M	No	5426.00	869.00		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	1374.00	328.00		
15	As above but for 500 mm dia pipes and depth 0.60 M	No	6838.00	1630.00		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	1517.00	361.00		
16	As above but for 600 mm dia pipes and depth 0.60 M	No	7867.00	1877.00		
a)	Extra for every 0.5 M depth beyond initial depth of 0.60 M.	50 cm depth	1746.00	416.00		

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
17	Providing and fixing in position steel fibre reinforced concrete (S.F.R.C.) frame and covers of approved make including loading, unloading, transportation, all taxes, etc. complete as directed by Engineer-in-charge (20 tonnes capacity).					
a)	540 mm dia	No	2949.00	702.00		
b)	560 mm dia	No	3666.00	872.00		
c)	90 x 45 cm size	No	2950.00	702.00		
d)	90 x 60 cm size	No	3197.00	761.00		
e)	60 x 60 cm size	No	2920.00	695.00		
f)	60 x 45 cm size	No	2530.00	602.00		
18	Providing and fixing intercepting sewer trap including concrete bedding, etc. complete.					
a)	150 x 100 mm	No	442.00	106.00		
b)	100 x 100 mm	No	316.00	75.00		
19	Providing and fixing in position S.W. bends of various size, etc. complete.					
a)	100 mm	No	140.00	34.00		
b)	150 mm	No	163.00	39.00		
20	Providing and fixing 'Y' junction and labour, etc. complete.					
a)	Saddle junction 100 x 100 M	No	171.00	41.00		
b)	'Y' junction 150 x 150 x 100 mm	No	197.00	47.00		
c)	'Y' junction 300 x 300 x 300 mm	No	231.00	55.00		
d)	'Y' junction 300 x 300 x 100 mm	No	197.00	47.00		
21	Providing and fixing in position A.C. soil ventilators / slotted as necessary and as directed by Engineer-in-charge, etc. complete.					
a)	80 mm	No	166.00	39.00		
b)	100 mm	No	202.00	48.00		
c)	150 mm	No	287.00	69.00		
22	Providing and fixing A.C. soil pipe or downtake pipe with all required fittings, taking hole, etc. complete (as per manufacturer's code of practice).					
a)	80 mm	No	292.00	71.00		
b)	100 mm	No	347.00	83.00		
c)	150 mm	No	545.00	131.00		
23	Providing and fixing Cast Iron soil pipe of 1.8 M length including taking out holes and all required fittings, etc. complete.					
	S/S					
a)	80 mm	No	1009.00	242.00		
b)	100 mm	No	1146.00	275.00		
	D/S		0.00			
a)	80 mm	No	1089.00	262.00		
b)	100 mm	No	1263.00	304.00		

SECTION – M

**WELL SINKING AND
RIVER INFILTRATION WORKS**

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	Providing, constructing coffer dam in river basin / dam storages as per type design including excavation, filling the middle portion with B.C. soil (in gunny bags if required). Providing impervious / semipervious materials on both sides of B.C. soil (in gunny bags if required) including ramming, compacting to the satisfaction of Engineer-in-charge till the completion of work including dismantling coffer dam after completion of works and disposing off the material as directed by the Engineer-in-charge.	Cum	542			
	Note : Pay line maximum. Top width payable shall be 2 Mtr. and maximum payable side slopes shall be 1.5 horizontal to 1 vertical, if the constructed top width of the side slopes are less, then the measurements at actual are payable. Extra top width or flat slopes are not payable. Contractor is free to use ballies, plastic sheets, piles, pipes, CGI sheets for supporting hearting materials instead of impervious/ semi-pervious hearting materials for which no extra payments shall be payable. 30% payment shall be withheld for dismantling of coffer dam. This foot note shall appear in tender condition. (Type section is shown on last page of type design section of CSR).					
2	Providing and fabricating at work shop, carting to site of work, including transport, loading, unloading, hoisting, lowering and setting out at actual site of well, sinking M.S. plate cutting edge for R.C.C. well curb consisting of 350 mm M.S. plate, 10 mm thick, champhering at bottom. Cutting edge should be provided in pieces not less than 2 M in length. Each joint should be plain from outside and jointed by gusset plate 400 x 200 x 12 mm thick M.S. plate with 12 nos. of 20 mm dia. crushank headed bolts (gusset plates from inside) with unequal angle of 90 x 60 x 10 mm should be welded from top of chamfered portion at 14 mm from bottom so that 15 mm side should be in contact with cutting edge with overlap of 300 mm joints. 16 mm dia bar should be welded to M.S. plate 200 mm below the top surface and length should be 1.8 M above plate with a bend 300 mm from plate surface including 3 coats of anticorrosive paint as directed by Engineer-in-charge.	Kg	81	18.99		

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
3	Providing and filling puddle (selected good impervious clay) in Kolhapur type weirs in proper layers of 15 cm including watering, ramming and compaction, etc. complete with all leads and lifts.	Cum	252			
4	Providing and filling around the well boulders filling of selected variety and size of boulders including cost of all materials, labour, transportation, etc. complete with all leads and lifts.	Cum	874			
5	Providing and fixing 80 mm dia A.C./ P.V.C. pipe weep holes at 1.5 M c/c staggered including cost of all materials and labour involved with all leads and lifts, etc. complete.	RMT	186			
6	Providing and fixing M.S. chequerred plate flooring of following thickness supported on M.S. angles (25 x 25 x 5 mm size) including welding, cutting and fabricating the plates to the required square or rounding shape, making holes in the plate, including providing and applying 3 coats of anticorrosive paint, etc. complete as directed by Engineer-in-charge.					
a)	6 mm thick	Sqm	3342	488.61		
b)	8 mm thick	Sqm	4212	489.60		
7	Providing at site of works ISI standard RCC slotted pipes of NP-3 class including cost of all central and local taxes, octroi, inspection, transportation, etc. complete including cost of RCC collar, etc. complete.					
a)	450 mm dia	RMT	4472.00			
b)	600 mm dia	RMT	6934.00			
8	Lowering, laying and jointing RCC slotted pipes of following diameters including all leads and lifts, cost of jointing material, labour, etc. complete as directed by Engineer-in-charge.					
a)	450 mm dia	RMT	206			
b)	600 mm dia	RMT	274			
9	Lowering, laying and jointing CI 'B' class connecting mains with rubber gaskets including transportation of pipes from stores to site of works, cost of jointing materials, cost of rubber gasket with all leads and lifts, etc. complete.					
i)	300 mm dia	RMT	229			
ii)	350 mm dia	RMT	266			
iii)	400 mm dia	RMT	352			
iv)	450 mm dia	RMT	367			
v)	500 mm dia	RMT	461			

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
vi)	600 mm dia	RMT	636			
vii)	700 mm dia	RMT	856			
viii)	750 mm dia	RMT	964			
10	Providing, lowering, laying and placing in position, shrouding material for porous pipe gallery / slotted pipe gallery / trench gallery with all leads and lifts involved including transportation of materials to site of works, screening and washing of materials and placing in position with given section, etc. complete as directed by Engineer-in-charge.					
a)	40 mm gauge pebbles	Cum	1215.00			
b)	12 mm to 20 mm gauge pebbles	Cum	1467.00			
c)	6 to 12 mm gauge pebbles	Cum	1673.00			
d)	Coarse sand (from river sand at site)	Cum	935.00			
e)	Fine sand (from river sand at site)	Cum	1575.00			
11	Providing and fixing in position Cl dapuri steps or 22 mm dia. M.S. bar step with proper anchorage, etc. and providing and applying 3 coats of anticorrosive paint, etc. complete as directed by Engineer-in-charge.	No	296.00			
12	Providing and fixing M.S. sluice gates in position as per detailed drawings and specification including cost of all materials, labour, operating pedestal, connecting rod, painting with three coats of anti-corrosive paint, etc. complete as directed by Engineer-in-charge.	Kg	98			
13	Providing and fixing in position C.I. / M.S. rose pieces in intake wells including cost of all materials and labour, painting with three coats of anticorrosive oil paint, etc. complete as directed by Engineer-in-charge.	Kg	74			
14	Providing and fixing in position 80 mm dia. x 1.5 M deep G.I. pipe anchorage below invert of pipeline for nalla or river crossings where soft materials or sand is anticipated for considerable depth including hammering the pipe upto 1.5 M depth below invert of pipe, removing sand/ loose materials in the pipe with small and long spoons, providing and fixing 16 mm dia x 1.75 M clear length M.S. hook for holding the pipeline in position, through G.I. pipe already hammered and cleared, pouring cement grout through this pipe upto top of pipe to form a cement bulb at bottom of pipe and to hold M.S. hook tight in the pipe including cost of all material and labour involved but excluding cost of excavation on pipeline for its exposure upto invert, as per type design.	Anch or Pipe				

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	Note : This type of pipe anchorage shall be provided at 30 M centre to centre on alternate side of pipeline for full width of nalla or river.					
15	<u>Providing and spreading</u> around the well 1 mm thick <u>polyethylene sheet</u> complete as directed by Engineer-in-charge.	Sqm	22.00			
16	<u>Dewatering charges for estimation purpose for head works in river basin or dam :</u>					
i)	Approach Channel	RMT	5723.00			
ii)	Intake Well of 3 M dia.	No	76329.00			
iii)	Inspection Well of 2 M dia.	No	49149.00			
iv)	Connecting Main	RMT	4587.00			
v)	Jack Well of 6 M dia.	No	228977.00			
vi)	Approach Bridge	RMT	771.00			
	Notes					
1)	The Contractor at his request may be allowed to start construction of masonry steining so as not to allow silting of well in oncoming monsoon and while paying masonry, 25% amount shall be withheld and released only when excavation to the full depth is completed.					
2)	Dewatering : Total dewatering charges are to be proposed in the tender as lumpsum amount and 75% is payable for excavation and 25% is payable for construction of well/ gallery. Out of 75% excavation, break-up shall be as under:					
	25% for last 1 M depth.					
	20% for 2 M depth which just above last 1 M depth.					
	15% for 2 M depth which just above last 3 M depth.					
	15% for the rest of depth from water table level.					
3)	The provisions made for dewatering in the tender being on lumpsum basis, the same shall have to be reduced / increased proportionately as the length of approach channel, connecting main or approach bridge reduces / increases during actual execution.					

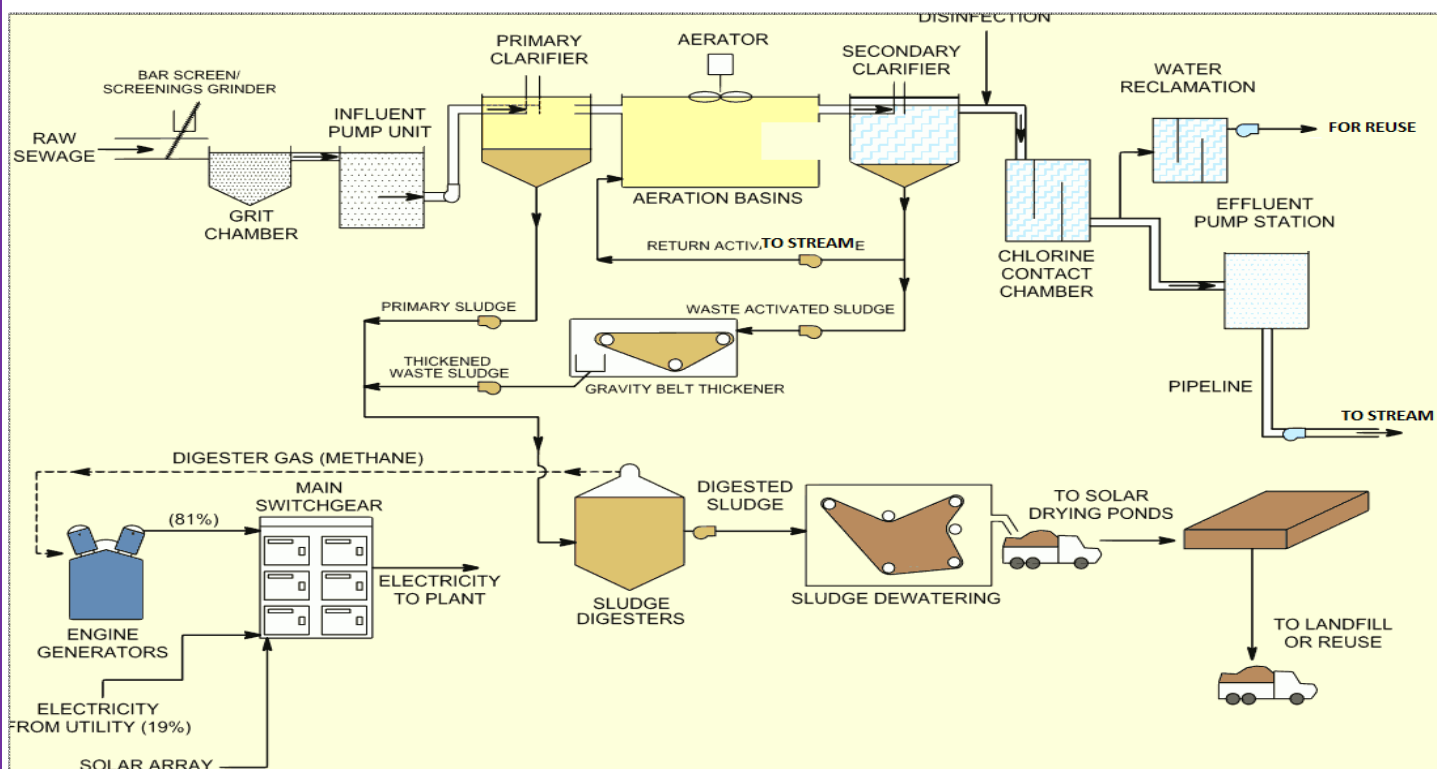
Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
	Condition Nos. (1) & (2) shall appear in tender conditions.					
17	Carrying out recuperation/ yield test for asserting the discharge of constructed well/ excavated profile as directed by Engineer-in-charge. The test is carried out by drawing down water from the well/profile below normal/ subsoil water level upto full depth rise in water level is recorded. The normal water level/ subsoil water level in the well/ profile as well as stainer/ suction level at pump as per design of W.S. scheme shall be recorded prior to the test including cost of all materials, overhead, labourers, etc. completed as directed.					
	The test shall be carried out as per Tech. Circular No. 2597 & 2011 -97 and shall be carried out for 7 days.					
i)	Lps more than 25,000	Day	2591.00			
ii)	Lps less than 25,000	Day	1865.00			



SECTION – N

TRIAL RUN

Sr. No.	Description	Unit	Rate (Rs.) 2019-20		Rate (Rs.) 2020-2021	
			Complete	Labour	Complete	Labour
1	Commissioning, running and maintaining the scheme to quantities, rated capacity, including manning necessary personnel such as operator, valveman, etc. as per requirements of the scheme and who should also administer chemical dose for a period of 1 month for individual scheme and for regional scheme, together with training of personnel spared by MJP / Local Body and handing over the scheme to Local Body after completion of the above period as directed by Engineer-in-charge.					
	Note : Required chemicals to be supplied by Department free of cost and electricity bill will also be paid by the Department.					
a)	For single village without WTP	Month	22399	--		
b)	For single village with WTP	Month	26132			
c)	For regional scheme upto 3 villages with raw water pumping, one treatment plant with pumps, raw water pumping main, leading main, ESR, BPT and distribution system, etc.	Month	46372			
d)	For regional scheme upto 3 villages with raw water pumping with pumps, raw water pumping main, leading main, ESR, BPT and distribution system, etc. (For six months) without WTP	Month	29993			
e)	For regional scheme upto 3 villages trial period shall be one year with raw water pumping, one treatment plant with pumps, raw water pumping main, leading main, ESR, BPT and distribution system, etc. (For one year)	Month	47038			
f)	For regional scheme upto 3 villages trial period shall be one year with raw water pumping with pumps, raw water pumping main, leading main, ESR, BPT and distribution system, etc. (For one month) without WTP	Month	30448			
g)	Add for every additional villages or part thereof	Month	8294	--		
h)	Add for every additional pumping station	Month	13649	--		



SAVING WATER IS EVERYONE'S RESPONSIBILITY

How much water do we use?

- Washing hands with the tap running = 5 litres
- Brushing teeth with the tap running = 2 litres
- Flushing the toilet = 13 litres
- Having a short shower = 30 litres
- Washing a car with a hose pipe = 50 litres
- Washing hands without a running tap = 1 litre
- Brushing teeth without a running tap = 350 millilitres
- Having a bath = 90 litres
- Watering the garden for 15 minutes = 50 litres



Serve, Grow and Succeed Together

