



## Water Works Section IIT, Khargapur

No. : IIT/WW/EE/TEN/2017-18/10

Date: 05.09.2017

### NOTICE INVITING TENDER

Last Date for submission of Tender:- 06<sup>th</sup> Oct, 2017 upto 3:00 P.M.

Tender Opening Date: 06.10.2017 at 3:30 P.M.

The Executive Engineer, Water Works & Sanitary Section IIT Kharagpur, invites the sealed tender in two bids system from eligible Agency of the Indian Institute of Technology, Kharagpur / CPWD/PWD/MES/also in Govt. Academic Institutions for the following work.

Sl. No.	Name of the work	Estimated Cost (Rs.)	Earnest Money Deposit(Rs.)	Time for completion
1.	Annual repair and maintenance in connection with plumbing and water supply at Academic Campus.	20.086 lakhs	40,200/-	01 year
2.	Annual repair and maintenance in connection with plumbing and water supply at Old Residential Campus	15.53 lakhs	31,100/-	01 year
3.	Annual repair and maintenance in connection with plumbing and water supply at New Residential Campus for the year 2017 -18.	19.72 lakhs	39,500/-	01 year
4.	Annual repair and maintenance in connection with plumbing and water supply at VS, BC ROY, MS, MT, Gokhale , AM, SN&IG,RK, RP, BF -1&3, RLB Halls .	13.00 lakhs	26000/-	01 year
5.	Annual repair and maintenance in connection with plumbing and water supply at MMM, Patel, Azad, Nehru, HJB, JCB, LLR, ZH Halls .	16.13 lakhs	32,150/-	01 year
6.	Operation & Maintenance of Iron Removal filters .	13.93 lakhs	28,000/-	01 year

#### Eligibility Criteria

The bidder should have executed three similar water & sanitary related works each of value 40% of the estimated cost or two similar works each of value 50% of the estimated cost or one work of value 80% of the estimated cost in the last seven years ending last day of the month previous to the one in which the tenders are invited credential in form of completion certificate as well as final bill copy to be enclosed. The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion to last date of applications for tenders.

The offer/bids to be submitted in two bids system i.e.1.Technical bid, & 2.Commercial bid. The technical bid must consists of all the details as specified above, as in a eligible criteria, the technical bid & commercial bid must be in separate envelopes duly sealed and marked as "Technical bid" & "Commercial bid" respectively.

Sealed Technical bid and commercial bid are to be put in a big size envelope. "Tender For Above Mentioned Work" is to be written on the left side of this envelope. The technical bid envelop should contains the cost of each Tender Paper Rs. 1,000.00 [Non refundable], (in the form of DD drawn in favour of IIT Kharagpur, payable at Kharagpur) & the EMD (in the form of DD drawn in favour of IIT Kharagpur, payable at Kharagpur) also in the same envelope.

The tenderer shall visit & inspect the site & obtain all information on his own responsibility & at own cost, which may be necessary for the purpose of quoting & submitting the tender. No excuse or ignorance as to site conditions & local information shall be accepted after awarding of the contract. All costs, charges & expenses that may be incurred in connection with the preparation of his tender shall be borne by him & the Institute accepts no liability whatsoever therefore. If there is any clarification required, the tenderer shall submit the queries in writing 03 days before the last date & time of submission of the tender, to the Executive Engineer (W.W & Sanitary Section), IIT, Kharagpur.

The bid shall remain valid for a period of 90 days from the date of opening of the bid. If before expiry of the validity period or issue of work order, whichever is earlier, the bidder amends/modifies/withdraws his bid, making unacceptable to the institute, then the Earnest Money Deposit shall be liable to forfeiture at the option of the Institute.

The Rates quoted by the tenderer should be inclusive of all taxes & duties, freight, cost for loading & unloading etc. & must hold good till the completion of work & shall not be subjected to escalation due to increase in local market rates of materials. No claim on this account what so ever shall be entertained at any stage including the extended period.

Each page of bid document shall have to be signed & stamped by the Bidder/ Authorised Signatory before submission. The bidders have to submit the tender documents & correspondences accompanying the tender with proper sign & stamp on each page along with the bid. The person/ officer signing the tender/bid should be delegated with an appropriate **Power of Attorney (duly endorsed by a Notary Public)** by the **owner / Proprietor/ Partner/ CEO/ MD/ Director** of the company to sign such documents.

The Intending bidders will have to produce documentary evidence in original in support of their credentials before the competent authority whenever demanded for verification. If any information furnished by the bidder found as false/fabricated then his bid will be rejected & treated as cancelled, even if the after signing of contract also it would lead to termination of contract at any stage besides liabilities towards prosecution under appropriate law. In such cases the bidder/ tenderer will be debarred from participation in future tendering process.

The sealed envelope containing Commercial Bid of the Tenderers will not be opened if their Technical bids are found unacceptable by the Committee.

The tender papers can be submitted on all working days (except holidays) during office hours either by Speed Post/Registered Post addressed to the Executive Engineer (W.W & Sanitary Section), IIT, Kharagpur, 721302 or by dropping the tender papers in the box to be kept in the office of the Executive Engineer (W.W & Sanitary Section), IIT, Kharagpur, 721302, Latest by 3:00 PM on 6<sup>th</sup> Oct, 2017 & it will be open on the same day at 3.30 p.m. In the event of this day being declared as a holiday, the tender papers may be submitted up to the aforementioned time on the next working day.

For all these details please visit Institute's website [www.iitkgp.ac.in](http://www.iitkgp.ac.in) (Link: Tenders) as well as CPP Portal also.

The Institute reserves the right to accept or reject the whole or a part of the lowest offer without showing any reason.

Executive Engineer  
Water Works and Sanitary Section  
On behalf of Indian Institute of Technology Kharagpur

## TECHNICAL BID DOCUMENT

### FORMAT TO BE FILLED BY THE AGENCY OF THE INDIAN INSTITUTE OF TECHNOLOGY/ CPWD/PWD/MES/ ALSO IN GOVT. ACADEMIC INSTITUTIONS. SUBMITTING TENDER FOR SUPPLY FOR IIT KHARAGPUR

1. Name of the Tenderer :
2. Status of the Tenderer :  
(attach documents, if registered company/partnership/proprietorship)
3. Whether OEM/representing foreign principle :  
(attach copy of certificate/authorization)
4. Details of key top official/authorized official :  
(attach details)
5. Details of tie-ups for supply/services, if any :  
(Attach details, agreements, escalation matrix)
6. Income Tax and Service Tax returns of previous three assessment year (copy):
7. Financial status of bidder and/or his associates including Annual Report & Balance Sheet/Statement of Account of past three years with Registration of Companies (ROC) receipts duly authenticated by Chartered Accountant :
8. Current list/address of clients where similar material has been supplied and successfully working :
9. Name of the vendor's three largest clients, to whom similar products and services were extended & amount of transaction/annual bills to such clients :
10. Name and address of Vendor's bankers and attach a Solvency Certificate from the Bank for a minimum amount of Rs. :
11. Income Tax Permanent A/c No. (attach copy) :
12. **Details of EMD/Bank Draft No., issuing branch and date:**

Certified that all above information are correct to the best of my/our information, knowledge and belief.

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Dated signature & seal of the Authorized person of OEM/Vendor

## GENERAL TERMS & CONDITIONS

- (1) Period of validity: Bids shall remain valid for acceptance for a period of *Three months* (90 days) from the date of opening of Price Bids.
- (2) Conditional offer will not be accepted.
- (3) Late Tenders:- Tender received after the due date and time of submission as mentioned below shall not be accepted.
- (4) Indian Agents of Bidders or Indian Agents who are bidding on behalf of their principals are to enclose the following documents:
  - (a) Current Sales Tax clearance certificates and PAN No.
  - (b) Summary of Audited statement of Accounts for the last three years to be enclosed and financial highlights.
- (5) Customer satisfaction/ completion certificate from one such organization is to be attached with the technical bid.
  
- (6) All Tenders (unless otherwise specified) are to be submitted/handed over to *The Office, of Water Works Section , IIT Kharagpur-721 302.*
- (7) The person attending the bid opening session should be delegated with appropriate Authorization from Company to sign such documents. Only two persons on behalf of each Company will be allowed to participate/attend the Bid opening session.
- (8) Bid once submitted shall be the property of IIT Kharagpur and shall not be returned to the vendor at any time.
  
- 9) A bid submitted with false information will not only be rejected but the vendor may also be debarred from participation in future tendering process.
- (10) Canvassing in any form not only invites disqualification in this tender but may also result in debarring the vendor from participation in the future tendering process.

**:: APPROVED MAKE LIST OF MATERIALS TO BE USED WHEREVER APPLICABLE ::**

SI	Item	SUGGESTED BRAND NAME OR SIMILAR (APPROVED BY THE AUTHORITY)
1	Cement (PSC)	ACC / Ultratech / Ambuja / Lafarge
2	Reinforcement Steel	TATA/SAIL/RINL
3	G.I. Pipes	TATA (medium duty)
4	PVC pipes (Schedule-40)	Oriplast / Supreme/ Asirvad/Dupal (Schedule-80)
5	High Density Poly-ethylene Pipe	Finolex
6	Poly Push fittings	Finolex
7	G.I Fittings	HB / R / NB
8	Brass Ferrule	AKB
9	Porcelain wash basin (White)	Parryware / Hindware / Nycer
10	Pedestal for wash basin (white)	Parryware / Hindware / Nycer
11	Stainless Steel Sink	Symphony /Prayag
12	Stainless Steel Sink With drain board	Symphony /Prayag
13	White Vitreous China Sink	Parryware / Hindware / Nycer
14	P.V.C. Connector	Prayag / Ashirvad / Shakti
15	Bottle waste trap	Prayag / Ashirvad / Shakti
16	P.V.C corrugated waste pipe	Prayag / Ashirvad / Shakti
17	C.P waste fittings	Pravat
18	P.V.C waste fittings	Prayag / Ashirvad / Shakti
19	P.V.C waste Coupling	Prayag / Ashirvad / Shakti
20	P.V.C water storage tank with closed top with lid (Black) - Multilayer	Sintex / Patton
21	P.V.C tank cover (Black) (for 300 litre to 5000 litre P.V.C tanks)	Sintex / Patton
22	Ball Cock Set	Prayag / Ashirvad / Shakti
23	Ball Cock Body	Prayag / Ashirvad / Shakti
24	Ball Cock Rod	Prayag / Ashirvad / Shakti
25	Ball Cock Ball	Prayag / Ashirvad / Shakti
26	Chromium plated Bib Cock short body	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 511)
27	Chromium plated Bib Cock long body with aerator	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 512)
28	Chromium plated Pillar Cock with aerator	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 508)
29	Chromium plated Stop Cock	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 513(B))
30	Chromium plated Angular Stop Cock	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 526)
31	Chromium plated Concealed Stop Cock	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 514(A))
32	Chromium plated round shower 100 mm dia with revolving joint	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 542N)
33	Chromium plated shower arm 240 mm long	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 536(A))
34	Chromium plated Hand shower 70mm dia Round Shape Single flow	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : ESH-551)
35	Flexible Tube 8mm dia & 1.5M Long with Nuts	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : SHA-549D8)
36	CP Health Faucet with 1mtr Flexible Tube with Wall Hook	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : ALD-573)
37	CP Centre hole Basin mixture with regular spout without popup waste system with 450 mm long braided hoses.	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 516)
38	CP Two Way Bib Cock with Wall Flange	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 512AN)

39	CP Sink Cock With Swinging Casted Spout (Table Mounted Model) With Aerator	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 523)
40	CP 15 mm dia swan neck tap with left & right hand operating nob with aerator	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 510, 510(A))
41	CP Wall Mixer Telephone Shower Arrangement Only With Crutch (With Bush & Piston Delux Divertor fitting) With bend, nipple, offset	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 517)
42	CP Wall Mixer With 115mm Long Bend Pipe For Connection To Overhead Shower, With Bush & Piston Divertor Fitting,With bend, nipple, offset, Aerator	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 517B)
43	CP Wall Mixer 3 In 1 System With 115mm Bend Pipe, Aerator and Small Knob	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 519)
44	CP Wall Mixer Non-Telephonic Shower System	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : 520)
45	CP Florentine Single Lever Surgical Purpose Elbow Action Basin Mixer with Extended Operating Lever without Popup Waste System with 450mm Long Braided Hoses	Jaquar / Essco Deluxe / Marc (Equivalent to Code No : FLR-5033B)
46	Brass spindle for CP bib cock,pillar cock, stop cock etc	Jaquar / Essco Deluxe / Marc
47	Liquid soap Dispenser	Jaquar / Marc (Equivalent to Code No :1135N )
48	Soap dish holder	Jaquar / Marc (Equivalent to Code No :1131N )
49	Soap dish holder	Jaquar / Marc (Equivalent to Code No :1131N )
50	15 mm dia CP Extension nipple	OSCO
51	CP offset for wall mixer	Jaquar / Essco
52	CP bend for wall mixer	Jaquar / Essco
53	PTMT bib cock (15mm)	Prayag / Ashirvad / Shakti (Equivalent to Code No :121-0 )
54	PTMT stop cock (Male/female thread)(15mm)	Prayag / Ashirvad / Shakti
55	PTMT angular stop cock (15mm)	Prayag / Ashirvad / Shakti
56	PTMT pillar cock (15mm)	Prayag / Ashirvad / Shakti
57	3" round PTMT overhead Swiveling Shower (15mm)	Prayag / Ashirvad / Shakti (Equivalent to Code No :1813 )
58	Health faucet with 1.5 mtr tube and hook	Prayag / Ashirvad / Shakti
59	Health faucet body	Prayag / Ashirvad / Shakti
60	Health faucet 1.5 mtr tube	Prayag / Ashirvad / Shakti
61	Health faucet 1.0 mtr tube	Prayag / Ashirvad / Shakti
62	Poly Ball Valve	JOY / Balaji
63	CP & Poly Clamp , Cistern fixing clamp	As approved by IIT KGP
64	Gunmetal wheel valve	ALTO / ZOLOTO / Leader
65	CI bib cock	ALTO
66	CI stop cock	ALTO
67	CI Ball Valve	ALTO
68	10 litre P.V.C. low-down cistern (White colour)	Parryware "Slimline Economy Single flush" / Hindware
69	32 mm dia. Polythene Flush Pipe	As approved by IIT KGP
70	Syphon for P.V.C Cistern	Parryware / Hindware
71	Rubber washer for syphon of P.V.C Cistern	As approved by IIT KGP
72	Poly handle for P.V.C Cistern	Parryware / Hindware
73	Ball cock set for P.V.C Cistern	Parryware / Hindware
74	M-seal	Pidilite
75	Lead wool	As approved by IIT KGP
76	Lead	UMPC
77	Urinal Sprader	As approved by IIT KGP
78	D.I Pipe	TATA/Electro Steel/ Rashmi
79	D.I Fittings	Kejriwal

**WATER WORKS SECTION  
IIT Kharagpur**

**TENDER PAPER ISSUED TO:**

**NAME OF WORK : Annual repair and maintenance in connection with plumbing & water supply at Academic Campus for the year 2017-2018.**

**Completion Time: 01 Year.**

**Submission of Tender Paper: 06<sup>th</sup> Oct, 2017 upto 3:00 P.M.**

## Estimate for Annual repair and maintenance in connection with plumbing & water supply at Academic Campus for the year 2017-2018.

SI No	Description	Qty	Unit	Rate (Rs.)	Amount
1	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete.				
a	Depth of excavation not exceeding 1,500 mm.	40.00	Cum		
2	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work)				
	With earth obtained from excavation of foundation.	40.00	Cum		
3	Brick work with 1st class bricks in cement mortar (1:6)				
a	In foundation & plinth.	1.00	Cum		
b	In superstructure, ground floor	1.00	Cum		
4	125 mm thick brickwork with 1st class bricks in cement mortar (1:4)	2.00	Sqm		
5	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, in ground floor as per relevant IS codes.				
	With local hard blackstone variety chips (crusher broken)	0.50	Cum		
6	15 mm thick plaster with cement mortar (1:4)	5.00	Sqm		
7	20 mm thick plaster with cement mortar (1:4)	5.00	Sqm		
8	Neat cement punning about 1.5mm thick in wall, dado, window sill, floor etc. NOTE: Cement 0.152 cu.m per 100 sq.m.	20.00	Sqm		
9	Dismantling all types of masonry excepting cement concrete plain or reinforced, stacking serviceable materials at site and removing rubbish as directed within a lead of 75 m.				
	In ground floor including roof	6.00	Cum		
10	Dismantling R.C. floor, roof, beams etc. including cutting rods and removing rubbish as directed within a lead of 75 m. including stacking of steel bars.				
	In ground floor including roof	1.000	Cum		
11	Cutting holes and subsequent mending good damages.				
	Diameter upto 150 mm in brick wall	150.0	Mtr		
12	Cutting chase upto 125 x 150 mm. and subsequent mending of damages.				
a	In brick wall	5.00	Mtr		
b	In concrete wall	2.00	Mtr		
13	Dismantling G.I or P.V.C Pipe with fittings carefully including removing to any distance and stacking				
a	15 mm dia to 32 mm dia	750.0	Mtr		
b	40 mm dia to 50 mm dia	250.0	Mtr		
c	80 mm dia to 100 mm dia	150.0	Mtr		
14	Refixing of G.I. Pipe with fitting after cleaning interior wall including mending good damages including cost of jointing materials where necessary				
a	15 mm dia	250.0	Mtr		
b	20 mm dia	150.0	Mtr		
c	25 mm dia	100.0	Mtr		
d	32 mm dia	75.00	Mtr		



e	40 mm dia	76.00	Mtr		
f	50 mm dia	150.0	Mtr		
g	80 mm dia	50.00	Mtr		
15	Supplying, fitting and fixing G.I. pipes of with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrow, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. <b>For Exposed Work</b>				
a	15 mm dia. medium quality	20.00	Mtr		
b	20 mm dia. medium quality	20.00	Mtr		
c	25 mm dia. medium quality	30.00	Mtr		
d	32 mm dia medium quality	30.00	Mtr		
e	40 mm dia. medium quality	30.00	Mtr		
f	50 mm dia. medium quality	15.00	Mtr		
16	Supplying, fitting and fixing PVC pipes (Schedule-40) of (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrow, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials like teflon, solvent cement etc. in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accessories, specials.) <b>For Exposed Work</b>				
a	15 mm dia	200.0	Mtr		
b	20 mm dia	350.0	Mtr		
c	25 mm dia	300.0	Mtr		
d	32 mm dia	50.00	Mtr		
e	40 mm dia	150.0	Mtr		
f	50 mm dia	100.0	Mtr		
17	Supplying, fitting and fixing PVC pipes (Schedule-40) for <b>underground work</b> of approved make (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrow, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials like teflon, solvent cement etc. cutting trenches upto 1.5 metre below surface in all sorts of soil and refilling the same as directed complete in all respect. (Payment will be made on the centre line measurement of the total pipe line including all specials No separate payment will be made for accessories, specials.)				
a	20 mm dia	30.00	Mtr		
b	25 mm dia	200.0	Mtr		
c	32 mm dia	100.0	Mtr		
d	40 mm dia	100.0	Mtr		
e	50 mm dia	250.0	Mtr		
f	80 mm dia	100.0	Mtr		
18	Supply, fitting, fixing of High Density Poly-ethylene Pipe conforming to IS - 4984 - 1985 (6 Kg / Sq.Cm.) (Working Pressure) complete in all respect including cost of jointing materials like solvent cement etc. in any position above ground.				

a	40 mm dia	100.0	Mtr		
b	50 mm dia	100.0	Mtr		
c	63 mm dia	50.00	Mtr		
19	Supplying fitting fixing Poly Push fittings				
a	Push Elbow 32 mm dia	15	Nos		
b	Push Elbow 40 mm dia	20	Nos		
c	Push Elbow 50 mm dia	30	Nos		
d	Push Elbow 63 mm dia	25	Nos		
e	Push Socket 32 mm dia	20	Nos		
f	Push socket 40 mm dia	15	Nos		
g	Push Socket 50 mm dia	15	Nos		
h	Push Socket 63 mm dia	15	Nos		
i	Push Tee 32 mm dia	20	Nos		
j	Push Tee 40 mm dia	10	Nos		
k	Push Tee 50 mm dia	10	Nos		
l	Push Tee 63 mm dia	10	Nos		
20	Providing, fitting, fixing G.I				
(i)	<b>Socket</b>				
a	15 mm dia	20	Nos		
b	20 mm dia	15	Nos		
c	25 mm dia	15	Nos		
d	32 mm dia	12	Nos		
e	40 mm dia	8	Nos		
f	50 mm dia	4	Nos		
g	80 mm dia	4	Nos		
(ii)	<b>Reducing Socket</b>				
a	20 mm dia	10	Nos		
b	25 mm dia	10	Nos		
c	32 mm dia	10	Nos		
d	40 mm dia	4	Nos		
e	50 mm dia	4	Nos		
f	80 mm dia	4	Nos		
(iii)	<b>Tee</b>				
a	15 mm dia	10	Nos		
b	20 mm dia	10	Nos		
c	25 mm dia	8	Nos		
d	32 mm dia	7	Nos		
e	40 mm dia	6	Nos		
f	50 mm dia	6	Nos		
g	80 mm dia	2	Nos		
(iv)	<b>Reducing Tee</b>				
a	20 mm dia	8	Nos		
b	25 mm dia	6	Nos		
c	32 mm dia	5	Nos		
d	40 mm dia	4	Nos		
e	50 mm dia	4	Nos		
f	80 mm dia	2	Nos		
(v)	<b>Union</b>				
a	15 mm dia	10	Nos		
b	20 mm dia	25	Nos		
c	25 mm dia	25	Nos		
d	32 mm dia	8			

e	40 mm dia	4	Nos		
f	50 mm dia	10	Nos		
g	80 mm dia	2	Nos		
(vi)	<b>Check nut</b>				
a	15 mm dia	4	Nos		
b	20 mm dia	5	Nos		
c	25 mm dia	8	Nos		
d	32 mm dia	6	Nos		
e	40 mm dia	4	Nos		
f	50 mm dia	6	Nos		
g	80 mm dia	2	Nos		
(vii)	<b>Elbow</b>				
a	15 mm dia	15	Nos		
b	20 mm dia	15	Nos		
c	25 mm dia	15	Nos		
d	32 mm dia	6	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	4	Nos		
g	80 mm dia	1	Nos		
(viii)	<b>Reducing Elbow</b>				
a	20 mm dia	10	Nos		
b	25 mm dia	10	Nos		
c	32 mm dia	6	Nos		
d	40 mm dia	4	Nos		
e	50 mm dia	4	Nos		
f	80 mm dia	2	Nos		
(ix)	<b>Flange</b>				
a	50 mm dia	6	Nos		
b	80 mm dia	6	Nos		
(x)	<b>Nipple</b>				
a	15 mm X 50 mm	100	Nos		
b	15 mm X 75 mm	100	Nos		
c	20 mm X 50 mm	100	Nos		
d	25 mm X 50 mm	101	Nos		
e	40 mm X 50 mm	25	Nos		
f	50 mm X 75 mm	15	Nos		
g	80 mm X 100 mm	10	Nos		
21	Supplying, fitting and fixing M.S Plug				
a	15 mm dia	20	Nos		
b	20 mm dia	20	Nos		
c	25 mm dia	20	Nos		
d	40 mm dia	10	Nos		
e	50 mm dia	15	Nos		
f	80 mm dia	5	Nos		
22	Supplying, fitting and fixing M.S Hook	20.00	kg		
23	Dismantling existing ferrule with fittings and refixing same after cleaning.	2	Each Set		
24	Drilling and tapping C.I. main.				
a	Upto 15 mm	2	Each Set		
b	Above 15 mm upto 25 mm	2	Each Set		
c	Above 25 mm	2	Each Set		

25	Supplying, fitting and fixing brass ferrule including connection with P.V.C. pipe upto 450 mm long with plumbing joint,brass over C.P. coupling at both ends, with cap and lining complete in all respect, including cutting trenches in all sorts of soil and filling up trenches as per direction of the Engineer-in-charge.				
(i)	25 mm dia	2	Each		
(ii)	20 mm dia	2	Each		
(iii)	15 mm dia	2	Each		
26	Dismantling wash basin with brackets with or without waste fittings.	30	Each		
27	Refixing wash basin with brackets with or without waste fittings.	30	each		
28	Dismantling sink with brackets with or without waste fittings.	20	each		
29	Refixing sink with brackets with or without waste fittings.	20	each		
30	Porcelain wash basin 550 mm x 400 mm size supplied fitted and fixed with bracket, including painting on bracket, including poly waste and coupling and with 1.15 cm long waste pipe	20	Nos		
31	Supplying, fitting and fixing pedestal for wash basin (white)	6	Nos		
32	Stainless Steel sink supplied fitted and fixed with C.P waste, Coupling, Sink waste pipe 1.15 cm long & C.I bracket. standerd quality. Size 600mm x 450mm x 200mm	20	Nos		
33	Supplying ,fitting and fixing white Vitreous Chaina Sink in position on C.I. brackets. Size-610mmX450mmX200mm, with C.P. waste & waste pipe	10	Nos		
34	Supplying,fitting and fixing 15 mm dia P.V.C. CONNECTOR white flexible, with both ends coupling with heavy brass/C.P/poly nut, 15 mm dia.				
	450 mm long	250	Nos		
35	32 mm dia P.V.C corrugated waste pipe for basin or sink with coupled at one end 1.15 cm long.	150	Nos		
36	Supplying, fitting and fixing Waste				
a	C.P over brass				
i)	32 mm	70	Each		
ii)	40 mm	20	Each		
b	Supplying, fitting and fixing Waste				
i)	32 mm	70	Each		
ii)	40 mm	20	Each		
37	Supplying, fitting and fixing of polythene coupling 32 mm size	31	Each		
38	Supplying, fitting and fixing of polythene coupling 40 mm size	16	Each		
39	Supplying, fitting, fixing C.I. Bracket including two coats of painting.				
a	Wash basin	16	Nos		
b	sink	16	Nos		
40	Cleaning wash basin/sink with acid, washing powder etc	20	Nos		
41	Labour for punching hole in plastic water storage tank up to 50 mm dia.	20	Each		
42	Labour for lowering plastic water storage tank and stacking in places as directed up to 1500 litre capacity	10	Each		
43	Supplying P.V.C water storage tank of with closed top with lid (Black) - Multilayer	20000	Ltrs		

44	Labour for hoisting plastic water storage tank up to 1500 litre capacity				
a	1st story from G.L.	2	Each		
b	2nd story to G L	2	Each		
c	3rd Story to G L	2	Each		
d	4th Story to G L	2	Each		
45	Labour for hoisting plastic water storage tank above 1500 litre upto 5000 litres capacity				
a	1st story from G.L.	2	Each		
b	2nd story to G L	2	Each		
c	3rd Story to G L	2	Each		
d	4th Story to G L	1	Each		
46	Supplying, fitting and fixing of P.V.C tank cover (Black) (for 300 litre to 5000 litre P.V.C tanks) with necessary hinge, serews and locking arrangement	100	Each		
47	Dismantling ball cock and refixing the same after repair including straightening lever and renewing split pin.				
a	15 mm dia	3	Nos		
b	20 mm dia	50	Nos		
c	25 mmdia	100	Nos		
d	40 mm dia	30	Nos		
e	50mm dia	60	Nos		
48	Supplying , fitting, fixing in position ball cock set				
a	20 mm dia	40	Nos		
b	25 mmdia	60	Nos		
c	40 mm dia	20	Nos		
d	50mm dia	30	Nos		
49	Supplying , fitting, fixing in position ball cocks body (without Rod & Ball)				
a	20 mm dia	10	Nos		
b	25 mmdia	15	Nos		
c	40 mm dia	15	Nos		
d	50mm dia	20	Nos		
50	Supplying , fitting, fixing in position ball cocks rod (Aluminium)				
a	20 mm dia	6	Nos		
b	25 mmdia	10	Nos		
c	40 mm dia	10	Nos		
d	50mm dia	10	Nos		
51	Supplying , fitting, fixing in position ball cocks ball (HDPE with brass nut)				
a	20 mm dia	4	Nos		
b	25 mmdia	3	Nos		
c	40 mm dia	2	Nos		
d	50mm dia	5	Nos		
52	Dismantling and refixing tank including disconnecting and refitting pipe connection in position.	15	each		
53	Supplying, fitting and fixing Chromium plated Bib Cock short body	35	Each		
54	Supplying, fitting and fixing Chromium plated Bib Cock long body with wall flange with aerator	16	Each		

55	Supplying, fitting and fixing Chromium plated Pillar Cock Super Deluxe with Aerator	20	Each		
56	Supplying, fitting and fixing Chromium plated Stop Cock	10	Each		
57	Supplying, fitting and fixing Chromium plated angular Stop Cock with wall flange	10	Each		
58	Supplying, fitting and fixing Chromium plated Concealed Stop Cock	2	Each		
59	Supplying, fitting and fixing Chromium plated round shower 100 mm dia with revolving joint	3	Each		
60	Supplying, fitting and fixing Chromium plated shower arm 240 mm long	4	Each		
61	Supplying, fitting and fixing CP Health Faucet with 1mtr Flexible Tube with Wall Hook	5	Each		
62	Supplying, fitting and fixing CP Sink Cock With Swinging Casted Spout (Table Mounted Model) With Aerator	2	No		
63	Providing fitting fixing C.P. Double neck Swan neck tap for laboratory use.	15	No		
64	Renewing brass spindle for CP bib cock, pillar cock, stop cock etc as approved by Engineer In charge	100	Each		
65	Renewing brass spindle for CP concealed stop cock etc as approved by Engineer In charge	5	Each		
66	Rewashing stop cock/ bib cock/ push cock/ pillar cock including gland packing/washer if necessary.	18	Each		
67	Dismantling and refixing bib cock /stop cock./Shower	150	Each		
68	Supplying, fitting and fixing CP Wall flange, CP hook for health faucet, hand shower etc.	5	Each		
69	Supplying, fitting and fixing CP Clamp				
	15 mm to 40 mm	50	Each		
70	Supplying, fitting and fixing liquid soap Dispenser	2	Each		
71	Supplying, fitting and fixing soap dish holder	2	Each		
72	Supplying, fitting and fixing 15 mm dia CP Extension nipple				
	50 mm to 75 mm	30	each		
73	Supplying, fitting and fixing Urinal Sprader	20	Each		
74	Supplying, fitting and fixing PTMT bib cock (15mm)	150	Each		
75	Supplying, fitting and fixing bib cock with nozzle	50	Each		
76	Supplying, fitting and fixing PTMT stop cock (Male/female thread)(15mm)	50	Each		
77	Supplying, fitting and fixing PTMT angular stop cock (15mm)	50	Each		

78	Supplying, fitting and fixing PTMT pillar cock (15mm)	50	Each		
79	Supplying, fitting and fixing 3" round PTMT overhead Swiveling Shower (15mm)	2	Each		
80	Health faucet "Prayag" make with 1.5 mtr tube and hook	15	Each		
81	Supplying, fitting and fixing Health faucet body	10	Each		
82	Supplying, fitting and fixing 1.5 mtr tube	10	Each		
83	Supplying, fitting and fixing 1 mtr tube	10	Each		
84	Supplying, fitting and fixing Poly Ball Valve				
a	15 mm dia	10	Nos		
b	20 mm dia	20	Nos		
c	25 mm dia	10	Nos		
d	40 mm dia	10	Nos		
e	50 mm dia	8	Nos		
85	Supplying, fitting and fixing Poly Clamp				
a	20 mm dia	26	Nos		
b	25 mm dia	21	Nos		
c	40 mm dia	10	Nos		
d	50 mm dia	10	Nos		
86	Supplying, fitting and fixing gunmetal wheel valve tested to 21 kg per sq. cm. (for water lines only).				
a	15 mm dia	4	each		
b	20 mm dia	4	each		
c	25 mm dia	5	each		
d	40 mm dia	5	each		
e	50 mm dia	4	each		
f	80 mm dia	1	each		
87	Supplying, fitting and fixing 15 mm dia CI bib cock	30	Each		
88	Supplying, fitting and fixing 15 mm dia CI Stop cock	15	Each		
89	Supplying, fitting and fixing CI Ball Valve				
a	15 mm	5	each		
b	20 mm	15	each		
c	25 mm	10	each		
d	40 mm	2	each		
e	50 mm	2	each		
90	Supplying, fitting and fixing 10 litre P.V.C. low-down cistern (White colour) Single flush" or its equivalent with P.V.C. fittings complete, C.I. brackets including two coats of painting to bracket etc.	50	Nos		
91	Dismantling cistern including disconnecting all pipes, accessories and fittings. Up to 10 litre	30	Nos		
92	Refixing cistern including brackets as necessary including cleaning and adjustment of all parts up to 10 lit or new cistern	30	Nos		
93	Supplying, fitting and fixing 32 mm dia. Polythene Flush Pipe of approved make with necessary fixing materials and clamps complete.	10	Nos		
94	Refixing flush pipe of water closet	30	Nos		
95	Repairing of flushing cisterns including replacement of syphon, washer, ball cock, handle etc	100	Nos		

96	Supplying of syphon for P.V.C Cistern	20	Nos		
97	Supplying of washer for syphon of P.V.C Cistern	20	Nos		
98	Supplying of Poly handle for P.V.C Cistern	11	Nos		
99	Supplying of Ball cock set for P.V.C Cistern	10	Nos		
100	Supplying fitting fixing of cistern clamp for P.V.C Cistern	15	Set		
101	Supplying of labour as per day to basis for attending emergency jobs including cutting road,hard rock etc. for exposing GI /C.I pipeline,removing mud,slushy earth, bailing out water etc.reqd. for jobs in connection with water supply maintenence under specific requirement from EIC.				
a	Mazdoor	318	Nos		
102	Supplying of Solvent Cement	10.00	250 gm.		
103	Supplying of M-seal	10	100 ml		
104	Cleaning washing O.H Tank up to 2000 lit capacity including disinfection( 270 x2 times+40=580)	580	Each		
				<b>TOTAL= Rs.</b>	
				<b>Say, TOTAL, Rs.</b>	



**WATER WORKS SECTION  
IIT Kharagpur**

**TENDER PAPER ISSUED TO:**

**NAME OF WORK : Annual repair and maintenance in connection with plumbing & water supply at MMM, PATEL, AZAD, NEHRU, HJB, JCB, LLR, ZH, L.B.S, BR AMBEDKAR, Halls of Residence for the year 2017-18.**

**Completion Time:** 01 Year.

**Submission of Tender Paper: 06<sup>th</sup> Oct, 2017 upto 3:00 P.M..**

**Annual repair and maintenance in connection with plumbing & water supply at  
MMM, PATEL, AZAD, NEHRU, HJB, JCB, LLR, ZH, L.B.S, BR AMBEDKAR, Halls of  
Residence for the year 2017-2018**

Sl	Description	Qty.	Unit	Rate (Rs.)	Amount (Rs)
1	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete. Depth of excavation not exceeding 1,500 mm.	40	Cum		
2	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work)With earth obtained from excavation of foundation.	40	Cum		
3	Brick work with 1st class bricks in cement mortar (1:6)In foundation & plinth.	2	Cum		
4	Brick work in cement mortar(1:6) in superstructure	12	Cum		
5	125 mm thick brickwork with cement mortar (1:4)	18	Sqm		
6	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement,if any, in ground floor as per relevant IS codes.With local hard blackstone variety chips (crusher broken)	1.5	Cum		
7	Hire and labour charges for providing shuttering as per direction for R.C.C. works	2	Sqm		
8	M.S. Reinforcement for R.C.C works including bending, binding etc. all complete as per direction	15	Kg.		
9	15 mm thick plaster with cement mortar (1:4)	10	Sqm		
10	20 mm thick plaster with cement mortar (1:4)	10	Sqm		
11	Neat cement punning about 1.5mm thick in wall,dado,window sill,floor etc. NOTE:Cement 0.152 cu.m per100 sq.m.	10	Sqm		
12	Artificial stone in floor, dado,staircase etc. with cement concetete (4:2:1) with stone chips laid in panels directed including necessary levelling course with 3mm topping , 25mm thick	1.5	Sqm		
13	Dismantling all types of masonry removing rubbish within 5 km as directed	2	Cum		
14	Cutting hole through wall and roof of concrete and mending good damages.Diameter upto 150 mm.				
ii	In brick work [Cement-4.0 Kg/Mtr]	15	mtr		
ii	(ii) In concrete work (plain or R.C.) [Cement- 3.0 Kg/Mtr]	15	mtr		
15	Dismantling G.I or P.V.C Pipe with fittings carefully including removing to any distance and stacking				
a	15 mm dia upto25mm	500	Mtr		
b	40 mm dia upto 50mm	200	Mtr		
c	80 mm dia to 100 mm dia	50	Mtr		

16	Dismantling ball cock and refixing after repair including straitaning lever and renewing split pin or fixing new ball cock or replacing the same				
a	15 mm dia	15	Each		
b	20 mm dia	15	Each		
c	25 mm dia	30	Each		
d	40 mm dia	20	Each		
e	50 mm dia	50	Each		
17	Providing fitting fixing ball cock of institute approved make(with Epoxy coated Al.Rod&H.D. Ball)				
a	25 mm dia	15	Each		
b	40mm dia	15	Each		
c	50mm dia	30	Each		
18	Supplying , fitting, fixing in position ball cocks body (without Rod & Ball) institute approved make				
a	20 mm dia	5	Nos		
b	25 mmdia	20	Nos		
c	40 mm dia	10	Nos		
d	50mm dia	30	Nos		
19	Supplying , fitting, fixing in position ball cocks rod (Aluminium) institute approved make				
a	20 mm dia	5	Nos		
b	25 mmdia	10	Nos		
c	40 mm dia	10	Nos		
d	50mm dia	20	Nos		
20	Supplying , fitting, fixing in position ball cocks ball (HDPE with brass nut) institute approved make				
a	20 mm dia	5	Nos		
b	25 mmdia	10	Nos		
c	40 mm dia	10	Nos		
d	50mm dia	20	Nos		
21	Cleaning washbasin/sink with acid	250	each		
22	Dismantling basin, sink with waste fittings and brackets	25	Each		
23	Refixing wash basin or sink including waste fittings	25	Each		
24	Porcelain wash basin institute approved make supplied fitted and fixed with bracket, including painting (550mmx400mm) size including polywaste and coupling with 1.15m wastepipe.	10	Each		
25	Refixing of G.I. Pipe with fitting after cleaning interior wall including mending good damages including cost of jointing materials where necessary				
a	15 mm dia	50	Mtr		
b	20mm dia	25	Mtr		
c	25mm dia	100	Mtr		
d	40 mm dia	25	Mtr		
e	50 mm dia	25	Mtr		
f	80mm dia	25	Mtr		
26	Dismantling existing ferrule including refixing the same after cleaning 15 mm to 25 mm dia	5	Each		

27	Supplying, fitting and fixing brass ferrule including connection with P.V.C. pipe of approved make upto 450 mm long with plumbing joint,brass over C.P. coupling at both ends, with cap and lining complete in all respect, including cutting trenches in all sorts of soil and filling up trenches as per direction of the Engineer-in-charge.				
a	15 mm dia	3	Each		
b	20 mm dia	3	Each		
c	25 mm dia	3	Each		
28	Labour for hoisting plastic water storage tank .				
1	Upto 1500 litre capacity.				
(a)	Upto 1st story from G.L.	2	Each		
(b)	Upto 2nd story from G.L.	2	Each		
(c)	Upto 3rd story from G.L.	2	Each		
(d)	Upto 4th story from G.L.	2	Each		
(e)	Upto 5th story from G.L.	2	Each		
2	Above 1500lit to 5000lit				
(a)	Upto 1st story from G.L.	2	Each		
(b)	Upto 2nd story from G.L.	2	Each		
(c)	Upto 3rd story from G.L.	2	Each		
(d)	Upto 4th story from G.L.	2	Each		
(e)	Upto 5th story from G.L.	2	Each		
29	Labour for punching hole in plastic water storage tank up to 50 mm dia.	10	Each		
30	Labour for lowering plastic water storage tank and stacking in places as directed up to 5000 lit capacity	2	Each		
31	Dismantling and refixing tank including disconnecting and refitting pipe connection in position.	20	each		
32	Supplying P.V.C water storage tank of approved quality with closed top with lid (Black) - Multilayer	100 00	litre		
33	Supplying, fitting and fixing of P.V.C tank cover (Black) (for 300 litre to 5000 litre P.V.C tanks) with necessary hinge, serews and locking arrangement institute approved make or as approved by Engineer-in-charge	100	Each		
34	Drilling and tapping C.I. Main				
(i)	15 mm dia	2	Each		
(ii)	up to 25 mm dia	2	Each		
(iii)	Above 25mm	2	Each		
35	Plugging up C.I. main with necessary materials & Labour Complete	4	Nos		
36	Dismantling cistern including disconnecting all pipes, accessories and fittings.Up to 10 litre	100	Nos		
37	Refixing cistern including brackets as necessary including cleaning and adjustment of all parts up to 10 lit or new cistern	100	Nos		
38	Repairing of flushing cisterns including replacement of syphon, washer,ball cock, handle etc	100	Nos		
39	Supplying fitting fixing low-down cistern parts.				
a	syphon washer	400	Each		
b	Knob	50	Each		
c	ball cock	25	Each		

d	syphon	50	Each		
e	clamp	25	Each		
40	Supplying, fitting and fixing 10 litre P.V.C. low-down cistern (White colour) institute approved make with P.V.C. fittings complete, C.I. brackets including two coats of painting to bracket etc.	100	Each		
41	Labour for making long screw including fitting and fixing.				
a	15 mm dia	15	Each		
b	20 mm dia	15	Each		
c	25 mm dia	25	Each		
d	40 mm dia	25	Each		
e	50 mm dia	50	Each		
f	80 mm dia	10	Each		
42	15 mm dia P.V.C connector institute approved make white flexible with both end coupled with heavy brass C.P. nut supplied fitted and fixed.				
a	450 mm long	150	Each		
43	Supplying, fitting and fixing complete Bottle waste trap PTMT Bottle trap 32 mm with connecting pipe institute approved make.	10	Nos		
44	Repairing 25mm to 40mm peets valve including renewing packing to gland etc. or fitting fixing new valve ( cost of valve excluded)	5	Each		
45	Supplying, fitting and fixing gunmetal wheel valve of approved brand and make tested to 21 kg per sq. cm. (for water lines only).				
a	15mm dia	3	Each		
b	20 mm dia	2	Each		
c	25 mm dia	4	Each		
d	40mm dia	2	Each		
e	50mm dia	4	Each		
f	80mm dia	1	Each		
46	Supplying of labour as per day to basis for attending emergency jobs including cutting road, hard rock etc. for exposing GI /C.I pipeline, removing mud, slushy earth, bailing out water etc. reqd. for jobs in connection with water supply maintenance under specific requirement from EIC.				
a	Mazdoor	624	Each		
47	Steel sink institute approved make supplied fitted and fixed with C.I bracket, including painting including C.P waste and coupling with waste pipe 1.15m long standard quality. Size 600mm x 450mm x 200mm	10	Each		
48	Supplying, fitting and fixing White Vitreous China Sink in position on C.I. brackets including two coats of painting of brackets. Plain edge sink with overflow (i) 610 mm X 450 mm X 250 mm	3	Nos		
49	Supplying, fitting, fixing 32 mm dia P.V.C waste pipe for basin or sink with coupled at one end with nut 32mm dia with waste fittings 115 cm long.	100	Each		
50	Supplying, fitting and fixing Waste of institute approved make.				
a	C.P over brass				
i)	32 mm	10	Each		
ii)	40 mm	15	Each		
b	Supplying, fitting and fixing Waste of Institute approved make.				
i)	32 mm	15	Each		

ii)	40 mm	10	Each		
51	Supplying, fitting and fixing of polythene coupling of approved make 32 mm size	30	Each		
52	Supplying, fitting and fixing of polythene coupling of approved make 40 mm size	15	Each		
53	Supplying, fitting, fixing 32 mm dia polythene flash pipe of approved make with necessary fixing materials & clamps complete.	25	Each		
54	labour charges for dismantling&refixing bib cock,stop cock, shower, pillar cock, fixing old/new taps	150	Each		
55	Supplying, fitting and fixing Chromium plated Bib Cock short body institute approved brand.	5	Each		
56	Supplying, fitting and fixing Chromium plated Bib Cock long body with wall flange with aerator institute approved brand.	5	Each		
57	Supplying, fitting and fixing Chromium plated Pillar Cock Super Deluxe with Aerator institute approved brand	5	Each		
58	Supplying, fitting and fixing Chromium plated Stop Cock institute approved brand.	5	Each		
59	Supplying, fitting and fixing Chromium plated angular Stop Cock with wall flange institute approved brand.	5	Each		
60	Supplying, fitting and fixing Chromium plated Concealed Stop Cock or institute approved brand.	5	Each		
61	Renewing brass spindle for CP bib cock,pillar cock, stop cock 15mm etc as approved by Engineer In charge	75	Each		
62	Renewing brass spindle for CP concealed stop cock etc as approved by Engineer In charge	4	Each		
63	Dismantling and refixing shower rose after cleaning	15	Each		
64	Supplying, fitting and fixing PTMT bib cock (15mm) institute approved brand	150	Each		
65	Supplying, fitting and fixing PTMT stop cock (Male/female thread)(15mm) institute approved brand	50	Each		
66	Supplying, fitting and fixing PTMT pillar cock (15mm) institute approved brand	100	Each		
67	Supplying, fitting and fixing 3" round PTMT overhead Swiveling Shower (15mm) institute approved brand	150	Each		
68	Providing fitting fixing institute approved make angular stop cock.	50	Each		
69	Health faucet institute approved make with 1.5 mtr tube and hook	10	Each		
70	Supplying, fitting and fixing Health faucet body institute approved make	10	Each		
71	Providing fitting fixing GI hook	40	Kg.		
72	Supplying, fitting and fixing Poly Ball Valve institute approved make				
a	15 mm dia	5	Each		
b	20 mm dia	5	Each		
c	25 mm dia	20	Each		
d	40 mm dia	20	Each		
e	50 mm dia	20	Each		

73	Renewing specials only of cast iron spun pipe conforming to I.S. 1536/1976 including cutting trenches in any soil or through masonry, concrete etc., if necessary and mending good damages including jointing with Tyton joints as per manufacturer's specifications excluding the cost of concrete or masonry work, if required, but including the cost of filling up trenches (for all dia. specials, payment will be made on the basis of actual weight of the specials	150	Kg		
74	Supplying of M-seal.	10	Nos		
75	Labour for replacing the C.I valves including cutting earth, dewatering, replacing the nut bolts/rubber sheet etc.				
a	75 mm to 100 mm dia	10	each		
b	150 mm dia	11	Each		
c	200 mm dia	3	Each		
76	Repairing of flange joint after dismantling the joints, dewatering, removing the unserviceable rubber insertion and providing new rubber insertion including replacing the necessary nut bolts etc.	14	Each		
77	Repairing charges for greasing C.I valves, repalcing the SS spindle for valves, replacing the gland packing etc	10	Each		
78	Labour for water supply checking in the hall area	50	Each Tank		
79	Renewing lead joint to CI pipes and specials and spun yarn including reusing 50% of old and using 50% new lead of approved quality new span yarn and caulking the same properly includig labour charges for dismantling the existing damaged protion complete as per direction of EIC. lead, spun yarn, fuel and other materials will be supplied by the Agency.				
a	80mm dia to 150mm dia	10	each		
b	200mm dia to 250mm dia	10	each		
80	Repairing damaged lead caulked joint by recasting and hammering the same with additional lead and lead wool.	10	Each		
81	Supplying, fitting and fixing 15 mm dia institute approved make CI bib cock	30	Each		
82	Supplying, fitting and fixing 15 mm dia institute approved make CI Stop cock	15	Each		
83	Providing fitting fixing PVC fittings (medium duty) conforming to ASTM D -1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I).				
A	Socket				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
B	Reducing socket				
i	20x15	5	Each		
ii	25x20	5	Each		
iii	25x15	5	Each		
iv	40x25	5	Each		
v	50x40	5	Each		
vi	80x50	5	Each		

C	Elbow				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
D	Reducing elbow				
i	25x15	5	Each		
ii	25x20	6	Each		
iii	80x50	5	Each		
E	Tee				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
F	Reducing Tee				
i	20 mm x15mm	5	Each		
ii	25mmx15mm	5	Each		
iii	40mmx25 mm	5	Each		
iv	50mmx40mm	5	Each		
v	80mmx50mm	5	Each		
G	Nipple 75mm Long				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
84	Providing fitting fixing P.V.C Pipes of approved make of (light duty) conforming to ASTM D-1785 and threaded to match with G.I. pipes as per IS:1239(Part-1) with all necessary specials viz. socket, bend, tee, union, cross, elbow, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted with G.I hook, including cutting pipes, making hreads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials in any position above ground. (Payment will be made on the centre line measurement of total pipe line including all specials. No separate payment will be made for accessories, specials.)				
a	15 mm dia	300	Mtr		
b	20 mm dia	100	Mtr		
c	25 mm dia	150	Mtr		
d	40mm dia	25	Mtr		
e	50mm dia	100	Mtr		



85	Supplying, fitting and fixing PVC pipes for underground work of approved make (light duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted including cost of all materials, jointing materials, cutting pipes, making threads, cutting trenches upto 1.5 metre below surface in all sorts of soil and refilling the same as directed complete in all respect. (Payment will be made on the centre line measurement of the total pipe line including all specials No separate payment will be made for accessories, specials.)				
a	20 mm dia	15	Mtr		
b	25 mm dia	50	Mtr		
c	40mm dia	25	Mtr		
d	50mm dia	100	Mtr		
e	80mm dia	100	Mtr		
86	Supply, fitting, fixing of High Density Poly-ethylene Pipe conforming to IS - 4984 - 1985 (6 Kg / Sq.Cm.) (Working Pressure) complete in all respect including cost of jointing materials like solvent cement etc. in any position above ground. institute approved make				
a	40 mm dia	20.0	Mtr		
b	50 mm dia	50.0	Mtr		
c	63 mm dia	40.0	Mtr		
87	Supplying fitting fixing Poly Push fittings institute approved make				
a	Push Elbow 32 mm dia	6	Nos		
b	Push Elbow 40 mm dia	10	Nos		
c	Push Elbow 50 mm dia	25	Nos		
d	Push Elbow 63 mm dia	5	Nos		
e	Push Socket 32 mm dia	5	Nos		
f	Push socket 40 mm dia	5	Nos		
g	Push Socket 50 mm dia	5	Nos		
h	Push Socket 63 mm dia	5	Nos		
i	Push Tee 32 mm dia	4	Nos		
j	Push Tee 40 mm dia	15	Nos		
k	Push Tee 50 mm dia	15	Nos		
l	Push Tee 63 mm dia	10	Nos		
88	Providing fitting fixing .....No separate payment will be made for accessories, specials.)				
a	15 mm dia	10	Mtr		
b	20 mm dia	5	Mtr		
c	25 mm dia	20	Mtr		
d	40mm dia	20	Mtr		
e	50mm dia	20	Mtr		
f	80mm dia	10	Mtr		
89	Removing chokage in G.I. pipe including cleaning pipe.				
a	15 mm dia	40	Mtr		
b	20 mm dia	10	Mtr		
c	25 mm dia	20	Mtr		
d	40 mm dia	10	Mtr		
e	50 mm dia	30	Mtr		
f	80 mm dia	10	Mtr		
90	Providing fitting fixing G.I specials institute approved make				

(a)	Flange				
i	50 mm dia	2	Nos		
ii	80 mm dia	2	Nos		
(b)	Socket				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia		Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
(c)	Reducing socket	5			
i	20mm dia	5	Each		
ii	25mm dia	5	Each		
iii	40mm dia	5	Each		
iv	50mm dia	5	Each		
v	80mm dia	5	Each		
(d)	Elbow				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
(e)	Reducing elbow				
i	20mm dia	5	Each		
ii	25mm dia	5	Each		
iii	40mm dia	5	Each		
iv	50mm dia	5	Each		
v	80mm dia	5	Each		
(f)	Tee				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
(g)	Reducing Tee				
i	20mm dia	5	Each		
ii	25mm dia	5	Each		
iii	40mm dia	5	Each		
iv	50mm dia	5	Each		
v	80mm dia	5	Each		
(h)	Nipple 50mm Long				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
(i)	Check nut				
a	15 mm dia	5	Nos		

b	20 mm dia	5	Nos		
c	25 mm dia	5	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	1	Nos		
g	80 mm dia	1	Nos		
(j)	Union				
a	15 mm dia	30	Nos		
b	20 mm dia	15	Nos		
c	25 mm dia	10	Nos		
d	32 mm dia	3	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	10	Nos		
g	80 mm dia	2	Nos		
(k)	Plug				
a	15 mm dia	25	Nos		
b	20 mm dia	15	Nos		
c	25 mm dia	10	Nos		
d	40 mm dia	5	Nos		
e	50 mm dia	5	Nos		
f	80 mm dia	2	Nos		
				Total	
				SAY TOTAL	

**WATER WORKS SECTION  
IIT Kharagpur**

**TENDER PAPER ISSUED TO:**

**NAME OF WORK : Annual repair and maintenance in connection with plumbing & water supply at VS,B.C.ROY,M.S, M.T, GOKHALE,AM,NIBEDITA,SN/IG,R.K,R.P,BF-1&3 , R.L.B Halls of Residence for the year 2017-18.**

**Completion Time:** 01 Year.

**Submission of Tender Paper: 06<sup>th</sup> Oct, 2017 upto 3:00 P.M..**

**Annual repair and maintenance in connection with plumbing & water supply at VS, B.C.ROY, M.S,M.T,GOKHALE,SAM, NIBEDITA, SN/IG,R.K,R.P,,R.L.B Halls of Residence for the year 2017-2018**

Sl	Description	Qty.	Unit	Rate (Rs.)	Amount (Rs)
1	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete.Depth of excavation not exceeding 1,500 mm.	30	Cum		
2	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work)With earth obtained from excavation of foundation.	30	Cum		
3	Brick work with 1st class bricks in cement mortar (1:6)In foundation & plinth.	2	Cum		
4	Brick work in cement mortar(1:6) in superstructure	6	Cum		
5	125 mm thick brickwork with cement mortar (1:4)	15	Sqm		
6	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement,if any, in ground floor as per relevant IS codes.With local hard blackstone variety chips (crusher broken)	1.5	Cum		
7	Hire and labour charges for providing shuttering as per direction for R.C.C. works	2	Sqm		
8	M.S. Reinforcement for R.C.C works including bending, binding etc. all complete as per direction	15	Kg.		
9	15 mm thick plaster with cement mortar (1:4)	10	Sqm		
10	20 mm thick plaster with cement mortar (1:4)	10	Sqm		
11	Neat cement punning about 1.5mm thick in wall,dado>window sill,floor etc. NOTE:Cement 0.152 cu.m per100 sq.m.	20	Sqm		
12	Artificial stone in floor, dado,staircase etc. with cement concrete (4:2:1) with stone chips laid in panels directed including necessary levelling course with 3mm topping , 25mm thick	1.5	Sqm		
13	Dismantling all types of masonry removing rubbish within 5 km as directed	2	Cum		
14	Cutting hole through wall and roof of concrete and mending good damages.Diameter upto 150 mm.				
i	In brick work [Cement-4.0 Kg/Mtr]	15	mtr		
ii	(ii) In concrete work (plain or R.C.) [Cement- 3.0 Kg/Mtr]	15	mtr		
15	Dismantling G.I or P.V.C Pipe with fittings carefully including removing to any distance and stacking				
a	15 mm dia upto25mm	700	Mtr		

b	40 mm dia upto 50mm	200	Mtr		
c	80 mm dia to 100 mm dia	50	Mtr		
16	Dismantling ball cock and refixing after repair including straitaning lever and renewing split pin or fixing new ball cock or replacing the same				
a	15 mm dia	15	Each		
b	20 mm dia	15	Each		
c	25 mm dia	20	Each		
d	40 mm dia	10	Each		
e	50 mm dia	50	Each		
17	Providing fitting fixing ball cock of institute approved make(with Epoxy coated AI.Rod&H.D. Ball)				
a	25 mm dia	15	Each		
b	40mm dia	10	Each		
c	50mm dia	30	Each		
18	Supplying , fitting, fixing in position ball cocks body (without Rod & Ball) institute approved make				
a	20 mm dia	5	Nos		
b	25 mmdia	20	Nos		
c	40 mm dia	10	Nos		
d	50mm dia	30	Nos		
19	Supplying , fitting, fixing in position ball cocks rod (Aluminium) institute approved make				
a	20 mm dia	5	Nos		
b	25 mmdia	10	Nos		
c	40 mm dia	10	Nos		
d	50mm dia	20	Nos		
20	Supplying , fitting, fixing in position ball cocks ball (HDPE with brass nut) institute approved make				
a	20 mm dia	5	Nos		
b	25 mmdia	10	Nos		
c	40 mm dia	10	Nos		
d	50mm dia	20	Nos		
21	Cleaning washbasin/sink with acid	250	each		
22	Dismantling basin, sink with waste fittings and brackets	25	Each		
23	Refixing wash basin or sink including waste fittings	25	Each		
24	Porcelain wash basin institute approved make supplied fitted and fixed with bracket, including painting (550mmx400mm) size including poly waste and coupling with 1.15m wastepipe.	5	Each		
25	Refixing of G.I. Pipe with fitting after cleaning interior wall including mending good damages including cost of jointing materials where necessary				
a	15 mm dia	50	Mtr		
b	20mm dia	25	Mtr		
c	25mm dia	100	Mtr		
d	40 mm dia	25	Mtr		
e	50 mm dia	25	Mtr		
f	80mm dia	25	Mtr		

26	Dismantling existing ferrule including refixing the same after cleaning 15 mm to 25 mm dia	5	Each		
27	Supplying, fitting and fixing brass ferrule including connection with P.V.C. pipe of approved make upto 450 mm long with plumbing joint,brass over C.P. coupling at both ends, with cap and lining complete in all respect, including cutting trenches in all sorts of soil and filling up trenches as per direction of the Engineer-in-charge.				
a	15 mm dia	3	Each		
b	20 mm dia	3	Each		
c	25 mm dia	3	Each		
28	Labour for hoisting plastic water storage tank .				
1	Upto 1500 litre capacity.				
(a)	Upto 1st story from G.L.	2	Each		
(b)	Upto 2nd story from G.L.	2	Each		
(c)	Upto 3rd story from G.L.	2	Each		
(d)	Upto 4th story from G.L.	2	Each		
(e)	Upto 5th story from G.L.	2	Each		
2	Above 1500lit to 5000lit				
(a)	Upto 1st story from G.L.	2	Each		
(b)	Upto 2nd story from G.L.	2	Each		
(c)	Upto 3rd story from G.L.	2	Each		
(d)	Upto 4th story from G.L.	2	Each		
(e)	Upto 5th story from G.L.	2	Each		
29	Labour for punching hole in plastic water storage tank up to 50 mm dia.	10	Each		
30	Labour for lowering plastic water storage tank and stacking in places as directed up to 5000 lit capacity	2	Each		
31	Dismantling and refixing tank including disconnecting and refitting pipe connection in position.	20	each		
32	Supplying P.V.C water storage tank of approved quality with closed top with lid (Black) - Multilayer	4000	litre		
33	Supplying, fitting and fixing of P.V.C tank cover (Black) (for 300 litre to 5000 litre P.V.C tanks) with necessary hinge, serews and locking arrangement institute approved make or as approved by Engineer-in-charge	100	Each		
34	Drilling and tapping C.I. Main				
(i)	15 mm dia	2	Each		
(ii)	up to 25 mm dia	2	Each		
(iii)	Above 25mm	2	Each		
35	Plugging up C.I. main with necessary materials & Labour Complete	4	Nos		
36	Dismantling cistern including disconnecting all pipes, accessories and fittings.Up to 10 litre	100	Nos		
37	Refixing cistern including brackets as necessary including cleaning and adjustment of all parts up to 10 lit or new cistern	100	Nos		
38	Repairing of flushing cisterns including replacement of syphon, washer,ball cock, handle etc	100	Nos		

39	Supplying fitting fixing low-down cistern parts.				
a	syphon washer	400	Each		
b	Knob	50	Each		
c	ball cock	25	Each		
d	syphon	50	Each		
e	clamp	25	Each		
40	Supplying, fitting and fixing 10 litre P.V.C. low-down cistern (White colour) institute approved make with P.V.C. fittings complete,C.I. brackets including two coats of painting to bracket etc.	30	Each		
41	Labour for making long screw including fitting and fixing.				
a	15 mm dia	15	Each		
b	20 mm dia	15	Each		
c	25 mm dia	25	Each		
d	40 mm dia	25	Each		
e	50 mm dia	50	Each		
f	80 mm dia	10	Each		
42	15 mm dia P.V.C connector institute approved make white flexible with both end coupled with heavy brass C.P. nut supplied fitted and fixed.				
a	450 mm long	100	Each		
43	Supplying, fitting and fixing complete Bottle waste trap PTMT Bottle trap 32 mm with connecting pipe institute approved make.	10	Nos		
44	Repairing 25mm to 40mm peets valve including renewing packing to gland etc. or fitting fixing new valve ( cost of valve excluded)	5	Each		
45	Supplying, fitting and fixing gunmetal wheel valve of approved brand and make tested to 21 kg per sq. cm. (for water lines only).				
a	15mm dia	3	Each		
b	20 mm dia	2	Each		
c	25 mm dia	4	Each		
d	40mm dia	2	Each		
e	50mm dia	4	Each		
f	80mm dia	1	Each		
46	Supplying of labour as per day to basis for attending emergency jobs including cutting road,hard rock etc. for exposing GI /C.I pipeline,removing mud,slushy earth, bailing out water etc.reqd. for jobs in connection with water supply maintenance under specific requirement from EIC.				
a	Mazdoor	624	Each		
47	Steel sink institute approved make supplied fitted and fixed with C.I bracket, including painting including C.P waste and coupling with waste pipe1.15m long standard quality. Size 600mm x 450mmx200mm	5	Each		
48	Supplying, fitting and fixing White Vitreous China Sink in position on C.I. brackets including two coats of painting of brackets.Plain edge sink with overflow (i) 610 mm X 450 mm X 250 mm	3	Nos		
49	Supplying, fitting, fixing 32 mm dia P.V.C waste pipe for basin or sink with coupled at one end with nut 32mm dia with waste fittings 115 cm long.	100	Each		



50	Supplying, fitting and fixing Waste of institute approved make.				
a	C.P over brass				
i)	32 mm	5	Each		
ii)	40 mm	5	Each		
b	Supplying, fitting and fixing Waste of Institute approved make.				
i)	32 mm	15	Each		
ii)	40 mm	10	Each		
51	Supplying, fitting and fixing of polythene coupling of approved make 32 mm size	30	Each		
52	Supplying, fitting and fixing of polythene coupling of approved make 40 mm size	15	Each		
53	Supplying, fitting, fixing 32 mm dia polythene flash pipe of approved make with necessary fixing materials & clamps complete.	25	Each		
54	labour charges for dismantling&refixing bib cock,stop cock, shower, pillar cock, fixing old/new taps	150	Each		
55	Supplying, fitting and fixing Chromium plated Bib Cock short body institute approved brand.	5	Each		
56	Supplying, fitting and fixing Chromium plated Bib Cock long body with wall flange with aerator institute approved brand.	5	Each		
57	Supplying, fitting and fixing Chromium plated Pillar Cock Super Deluxe with Aerator institute approved brand	5	Each		
58	Supplying, fitting and fixing Chromium plated Stop Cock institute approved brand.	5	Each		
59	Supplying, fitting and fixing Chromium plated angular Stop Cock with wall flange institute approved brand.	5	Each		
60	Supplying, fitting and fixing Chromium plated Concealed Stop Cock or institute approved brand.	5	Each		
61	Renewing brass spindle for CP bib cock,pillar cock, stop cock 15mm etc as approved by Engineer In charge	10	Each		
62	Renewing brass spindle for CP concealed stop cock etc as approved by Engineer In charge	4	Each		
63	Dismantling and refixing shower rose after cleaning	15	Each		
64	Supplying, fitting and fixing PTMT bib cock (15mm) institute approved brand	50	Each		
65	Supplying, fitting and fixing PTMT stop cock (Male/female thread)(15mm) institute approved brand	50	Each		
66	Supplying, fitting and fixing PTMT pillar cock (15mm) institute approved brand	100	Each		
67	Supplying, fitting and fixing 3" round PTMT overhead Swiveling Shower (15mm) institute approved brand	150	Each		
68	Providing fitting fixing institute approved make angular stop cock.	50	Each		
69	Health faucet institute approved make with 1.5 mtr tube and hook	10	Each		

70	Supplying, fitting and fixing Health faucet body institute approved make	10	Each		
71	Providing fitting fixing GI hook	40	Kg.		
72	Supplying, fitting and fixing Poly Ball Valve institute approved make				
a	15 mm dia	5	Each		
b	20 mm dia	5	Each		
c	25 mm dia	20	Each		
d	40 mm dia	20	Each		
e	50 mm dia	20	Each		
73	Renewing specials only of cast iron spun pipe conforming to I.S. 1536/1976 including cutting trenches in any soil or through masonry, concrete etc., if necessary and mending good damages including jointing with Tyton joints as per manufacturer's specifications excluding the cost of concrete or masonry work, if required, but including the cost of filling up trenches (for all dia. specials, payment will be made on the basis of actual weight of the specials	100	Kg		
74	Supplying of M-seal	10	Nos		
75	Labour for replacing the C.I valves including cutting earth, dewatering, replacing the nut bolts/rubber sheet etc.				
a	75 mm to 100 mm dia	1	each		
b	150 mm dia	1	Each		
c	200 mm dia	1	Each		
76	Repairing of flange joint after dismantling the joints, dewatering, removing the unserviceable rubber insertion and providing new rubber insertion including replacing the necessary nut bolts etc.	5	Each		
77	Repairing charges for greasing C.I valves, repalcing the SS spindle for valves, replacing the gland packing etc	5	Each		
78	Labour for water supply checking in the hall area	50	Each Tank		
79	Renewing lead joint to CI pipes and specials and spun yarn including reusing 50% of old and using 50% new lead of approved quality new span yarn and caulking the same properly includig labour charges for dismantling the existing damaged protion complete as per direction of EIC. lead, spun yarn, fuel and other materials will be supplied by the Agency.				
a	80mm dia to 150mm dia	2	each		
b	200mm dia to 250mm dia	2	each		
80	Repairing damaged lead caulked joint by recasting and hammering the same with additional lead and lead wool.	5	Each		
81	Supplying, fitting and fixing 15 mm dia institute approved make CI bib cock	10	Each		
82	Supplying, fitting and fixing 15 mm dia institute approved make CI Stop cock	5	Each		
83	Providing fitting fixing PVC fittings (medium duty) conforming to ASTM D -1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I).				

A	Socket				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
B	Reducing socket				
i	20x15	5	Each		
ii	25x20	5	Each		
iii	25x15	5	Each		
iv	40x25	5	Each		
v	50x40	5	Each		
vi	80x50	5	Each		
C	Elbow				
i	15 mm dia	4	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
D	Reducing elbow				
i	25x15	5	Each		
ii	25x20	5	Each		
iii	80x50	5	Each		
E	Tee				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
F	Reducing Tee				
i	20 mm x15mm	5	Each		
ii	25mmx15mm	5	Each		
iii	40mmx25 mm	5	Each		
iv	50mmx40mm	5	Each		
v	80mmx50mm	5	Each		
G	Nipple 75mm Long				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		

84	Providing fitting fixing P.V.C Pipes of approved make of (light duty) conforming to ASTM D-1785 and threaded to match with G.I. pipes as per IS:1239(Part-1) with all necessary specials viz.socket,bend,tee,union, cross, elbow,nipple,longscrew,reducing socket,reducing tee,short piece etc.fitted with G.I hook,including cutting pipes, making hreads,fitting,fixing etc.complete in all respect including cost of all necessary fittings as required ,jointing materials in any position above ground.(Payment will be made on the centre line measurement of total pipe line including all specials.No separate payment will be made for accessories,specials.)				
a	15 mm dia	100	Mtr		
b	20 mm dia	100	Mtr		
c	25 mm dia	150	Mtr		
d	40mm dia	25	Mtr		
e	50mm dia	95	Mtr		
85	Supplying, fitting and fixing PVC pipes for underground work of approved make (light duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrew, reducing socket, reducing tee, short piece etc. fitted including cost of all materials ,jointing materials, cutting pipes, making threads ,cutting trenches upto 1.5 metre below surface in all sorts of soil and refilling the same as directed complete in all respect. (Payment will be made on the centre line measurement of the total pipe line including all specials No separate payment will be made for accessories, specials.)				
a	20 mm dia	15	Mtr		
b	25 mm dia	50	Mtr		
c	40mm dia	25	Mtr		
d	50mm dia	100	Mtr		
e	80mm dia	100	Mtr		
86	Supply, fitting, fixing of High Density Poly-ethylene Pipe conforming to IS - 4984 - 1985 (6 Kg / Sq.Cm.) (Working Pressure) complete in all respect including cost of jointing materials like solvent cement etc. in any position above ground. institute approved make				
a	40 mm dia	20.00	Mtr		
b	50 mm dia	50.00	Mtr		
c	63 mm dia	40.00	Mtr		
87	Supplying fitting fixing Poly Push fittings institute approved make				
a	Push Elbow 32 mm dia	5	Nos		
b	Push Elbow 40 mm dia	10	Nos		
c	Push Elbow 50 mm dia	25	Nos		
d	Push Elbow 63 mm dia	5	Nos		
e	Push Socket 32 mm dia	5	Nos		
f	Push socket 40 mm dia	5	Nos		
g	Push Socket 50 mm dia	5	Nos		
h	Push Socket 63 mm dia	5	Nos		
i	Push Tee 32 mm dia	4	Nos		
j	Push Tee 40 mm dia	15	Nos		
k	Push Tee 50 mm dia	15	Nos		

1	Push Tee 63 mm dia	10	Nos		
88	Providing fitting fixing G.I Pipes of institute approved make (medium duty) with all necessary accessories, specials viz.socket,bend,tee, union,cross, elbow, nipple, longscrew,reducing socket,reducing tee,short piece etc.fitted with holder bats clamps,including cutting pipes, making threads,fitting,fixing etc.complete in all respect including cost of all necessary fittings as required ,jointing materials in any position above ground.(Payment will be made on the centre line measurement of total pipe line including all specials.No separate payment will be made for accessories,specials.)				
a	15 mm dia	10	Mtr		
b	20 mm dia	5	Mtr		
c	25 mm dia	20	Mtr		
d	40mm dia	20	Mtr		
e	50mm dia	20	Mtr		
f	80mm dia	10	Mtr		
89	Removing chokage in G.I. pipe including cleaning pipe.				
a	15 mm dia	40	Mtr		
b	20 mm dia	10	Mtr		
c	25 mm dia	20	Mtr		
d	40 mm dia	10	Mtr		
e	50 mm dia	30	Mtr		
f	80 mm dia	10	Mtr		
90	Providing fitting fixing G.I specials institute approved make				
(a)	Flange				
i	50 mm dia	2	Nos		
ii	80 mm dia	2	Nos		
(b)	Socket				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia		Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
(c)	Reducing socket	5			
i	20mm dia	5	Each		
ii	25mm dia	5	Each		
iii	40mm dia	5	Each		
iv	50mm dia	5	Each		
v	80mm dia	5	Each		
(d)	Elbow				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
(e)	Reducing elbow				
i	20mm dia	5	Each		

ii	25mm dia	5	Each		
iii	40mm dia	5	Each		
iv	50mm dia	5	Each		
v	80mm dia	5	Each		
(f)	Tee				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
(g)	Reducing Tee				
i	20mm dia	5	Each		
ii	25mm dia	5	Each		
iii	40mm dia	5	Each		
iv	50mm dia	5	Each		
v	80mm dia	5	Each		
(h)	Nipple 50mm Long				
i	15 mm dia	5	Each		
ii	20 mm dia	5	Each		
iii	25 mm dia	5	Each		
iv	40mm dia	5	Each		
v	50mm dia	5	Each		
vi	80mm dia	5	Each		
(i)	Check nut				
a	15 mm dia	5	Nos		
b	20 mm dia	5	Nos		
c	25 mm dia	5	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	1	Nos		
g	80 mm dia	1	Nos		
(j)	Union				
a	15 mm dia	30	Nos		
b	20 mm dia	15	Nos		
c	25 mm dia	10	Nos		
d	32 mm dia	3	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	10	Nos		
g	80 mm dia	2	Nos		
(k)	Plug				
a	15 mm dia	25	Nos		
b	20 mm dia	15	Nos		
c	25 mm dia	10	Nos		
d	40 mm dia	5	Nos		
e	50 mm dia	5	Nos		
f	80 mm dia	2	Nos		
				Total	
				SAY TOTAL	

**WATER WORKS SECTION  
IIT Kharagpur**

**TENDER PAPER ISSUED TO:**

**NAME OF WORK :** Annual repair and maintenance in connection with plumbing & water supply at New Residential Campus for the year 2017 -18.

**Completion Time:** 01 Year.

**Submission of Tender Paper: 06<sup>th</sup> Oct, 2017 upto 3:00 P.M.**

## Estimate for Annual repair and maintenance in connection with plumbing & water supply at New Residential Campus for the year 2017-18.

Sl	Description	Qty	Unit	Rate (Rs.)	Amt
<b>Civil Items</b>					
1	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete.				
a	Depth of excavation not exceeding 1,500 mm.	40.000	Cum		
2	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work)				
	With earth obtained from excavation of foundation.	40.000	Cum		
3	Brick work with 1st class bricks in cement mortar (1:6)				
a	In foundation & plinth.	4.000	Cum		
b	In superstructure, ground floor	1.000	Cum		
4	125 mm thick brickwork with 1st class bricks in cement mortar (1:4)	1.000	Sqm		
5	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, in ground floor as per relevant IS codes.				
	With local hard blackstone variety chips (crusher broken)	0.300	Cum		
6	15 mm thick plaster with cement mortar (1:4)	5.000	Sqm		
7	20 mm thick plaster with cement mortar (1:4)	35.000	Sqm		
8	Neat cement punning about 1.5mm thick in wall, dado, window sill, floor etc. NOTE: Cement 0.152 cu.m per 100 sq.m.	35.000	Sqm		
9	Dismantling all types of masonry excepting cement concrete plain or reinforced, stacking serviceable materials at site and removing rubbish as directed within a lead of 75 m.				
	Upto 1st Floor	2.000	Cum		
10	Dismantling R.C. floor, roof, beams etc. including cutting rods and removing rubbish as directed within a lead of 75 m. including stacking of steel bars.				
	Upto 1st Floor	1.000	Cum		
11	Cutting holes and subsequent mending good damages.				
	Diameter upto 150 mm in brick wall	20	Mtr		
12	Cutting chase upto 125 x 150 mm. and subsequent mending of damages.				
a	In brick wall	10.000	Mtr		
b	In concrete wall	5.000	Mtr		



<b>13</b>	Dismantling G.I or P.V.C Pipe with fittings carefully including removing to any distance and stacking				
a	15 mm dia to 32 mm dia	700.00 0	Mtr		
b	40 mm dia to 50 mm dia	149.00 0	Mtr		
c	80 mm dia to 100 mm dia	50.000	Mtr		
<b>14</b>	Refixing of G.I or P.V.C Pipe with fitting after cleaning interior wall including mending good damages including cost of jointing materials where necessary				
a	15 mm dia	250.00 0	Mtr		
b	20 mm dia	200.00 0	Mtr		
c	25 mm dia	100.00 0	Mtr		
d	32 mm dia	18.000	Mtr		
e	40 mm dia	75.000	Mtr		
f	50 mm dia	75.000	Mtr		
g	80 mm dia	30.000	Mtr		
<b>15</b>	Supplying, fitting and fixing G.I. pipes of with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrew, reducing socket, reducing tee, short piece etc. fitted ith holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. <b>For Exposed Work</b>				
a	15 mm dia. medium quality	30.000	Mtr		
b	20 mm dia. medium quality	50.000	Mtr		
c	25 mm dia. medium quality	50.000	Mtr		
d	32 mm dia. medium quality	12.000	Mtr		
e	40 mm dia. medium quality	30.000	Mtr		
f	50 mm dia. medium quality	50.000	Mtr		
<b>16</b>	Removing chokage in G.I. pipe including cleaning pipe.				
a	15 mm dia	30	Mtr		
b	20 mm dia	20	Mtr		
c	25 mm dia	15	Mtr		
d	32 mm dia	6	Mtr		
e	40 mm dia	10	Mtr		
f	50 mm dia	30	Mtr		
g	80 mm dia	6	Mtr		

17	Supplying, fitting and fixing PVC pipes (Schedule-40) of (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials like teflon, solvent cement etc. in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accessories, specials.) <b>For Exposed Work</b>				
a	15 mm dia	300.00 0	Mtr		
b	20 mm dia	150.00 0	Mtr		
c	25 mm dia	150.00 0	Mtr		
d	32 mm dia	12.000	Mtr		
e	40 mm dia	18.000	Mtr		
f	50 mm dia	100.00 0	Mtr		
18	Supplying, fitting and fixing PVC pipes (Schedule-40) for <b>underground work</b> of approved make (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials like teflon, solvent cement etc. cutting trenches upto 1.5 metre below surface in all sorts of soil and refilling the same as directed complete in all respect. (Payment will be made on the centre line measurement of the total pipe line including all specials No separate payment will be made for accessories, specials.)				
a	20 mm dia	30.000	Mtr		
b	25 mm dia	30.000	Mtr		
c	32 mm dia	12.000	Mtr		
d	40 mm dia	30.000	Mtr		
e	50 mm dia	75.000	Mtr		
f	80 mm dia	24.000	Mtr		
19	Supply, fitting, fixing of High Density Polyethylene Pipe conforming to IS - 4984 - 1985 (6 Kg / Sq.Cm.) (Working Pressure) complete in all respect including cost of jointing materials like solvent cement etc. in any position above ground.				
a	40 mm dia	50.000	Mtr		
b	50 mm dia	60.000	Mtr		
c	63 mm dia	30.000	Mtr		

<b>20</b>	Supplying fitting fixing Poly Push fittings				
a	Push Elbow 32 mm dia	6	Nos		
b	Push Elbow 40 mm dia	15	Nos		
c	Push Elbow 50 mm dia	50	Nos		
d	Push Elbow 63 mm dia	6	Nos		
e	Push Socket 32 mm dia	5	Nos		
f	Push socket 40 mm dia	5	Nos		
g	Push Socket 50 mm dia	5	Nos		
h	Push Socket 63 mm dia	3	Nos		
i	Push Tee 32 mm dia	4	Nos		
j	Push Tee 40 mm dia	10	Nos		
k	Push Tee 50 mm dia	10	Nos		
l	Push Tee 63 mm dia	3	Nos		
<b>21</b>	Providing, fitting, fixing G.I fittings				
(i)	<b>Socket</b>				
a	15 mm dia	20	Nos		
b	20 mm dia	15	Nos		
c	25 mm dia	15	Nos		
d	32 mm dia	4	Nos		
e	40 mm dia	5	Nos		
f	50 mm dia	6	Nos		
g	80 mm dia	2	Nos		
(ii)	<b>Reducing Socket</b>				
a	20 mm dia	15	Nos		
b	25 mm dia	10	Nos		
c	32 mm dia	4	Nos		
d	40 mm dia	2	Nos		
e	50 mm dia	2	Nos		
f	80 mm dia	2	Nos		
(iii)	<b>Tee</b>				
a	15 mm dia	15	Nos		
b	20 mm dia	12	Nos		
c	25 mm dia	10	Nos		
d	32 mm dia	2	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	2	Nos		
g	80 mm dia	2	Nos		
(iv)	<b>Reducing Tee</b>				
a	20 mm dia	12	Nos		
b	25 mm dia	10	Nos		
c	32 mm dia	2	Nos		
d	40 mm dia	2	Nos		
e	50 mm dia	3	Nos		
f	80 mm dia	2	Nos		
(v)	<b>Union</b>				
a	15 mm dia	45	Nos		
b	20 mm dia	25	Nos		
c	25 mm dia	15	Nos		
d	32 mm dia	3	Nos		
e	40 mm dia	2	Nos		

	f	50 mm dia	10	Nos		
	g	80 mm dia	2	Nos		
	(vi)	<b>Check nut</b>				
	a	15 mm dia	2	Nos		
	b	20 mm dia	5	Nos		
	c	25 mm dia	5	Nos		
	d	32 mm dia	1	Nos		
	e	40 mm dia	2	Nos		
	f	50 mm dia	1	Nos		
	g	80 mm dia	1	Nos		
	(vii)	<b>Elbow</b>				
	a	15 mm dia	43	Nos		
	b	20 mm dia	15	Nos		
	c	25 mm dia	10	Nos		
	d	32 mm dia	3	Nos		
	e	40 mm dia	2	Nos		
	f	50 mm dia	6	Nos		
	g	80 mm dia	2	Nos		
	(viii)	<b>Reducing Elbow</b>				
	a	20 mm dia	15	Nos		
	b	25 mm dia	10	Nos		
	c	32 mm dia	3	Nos		
	d	40 mm dia	2	Nos		
	e	50 mm dia	5	Nos		
	f	80 mm dia	2	Nos		
	(ix)	<b>Flange</b>				
	a	50 mm dia	2	Nos		
	b	80 mm dia	2	Nos		
	(x)	<b>Nipple</b>				
	a	15 mm X 50 mm	120	Nos		
	b	15 mm X 75 mm	100	Nos		
	c	20 mm X 50 mm	25	Nos		
	d	25 mm X 50 mm	25	Nos		
	e	40 mm X 50 mm	15	Nos		
	f	50 mm X 75 mm	15	Nos		
	g	80 mm X 100 mm	10	Nos		
	<b>22</b>	Supplying, fitting and fixing M.S Plug				
	a	15 mm dia	50	Nos		
	b	20 mm dia	10	Nos		
	c	25 mm dia	10	Nos		
	d	40 mm dia	5	Nos		
	e	50 mm dia	6	Nos		
	f	80 mm dia	3	Nos		
	<b>23</b>	Supplying, fitting and fixing M.S Hook	50	kg		
	<b>24</b>	Dismantling ferrule with all pipe connection	4	Each Set		
	<b>25</b>	Dismantling existing ferrule with fittings and refixing same after cleaning.	4	Each Set		
	<b>26</b>	Drilling and tapping C.I. main.				
	a	Upto 15 mm	2	set		
	b	Above 15 mm upto 25 mm	4	set		
	c	Above 25 mm	2	set		

27	Plugging up C.I. main with necessary materials & Labour Complete	4	set		
28	Supplying, fitting and fixing brass ferrule including connection with P.V.C. pipe of approved make upto 450 mm long with plumbing joint,brass over C.P. coupling at both ends, with cap and lining complete in all respect, including cutting trenches in all sorts of soil and filling up trenches as per direction of the Engineer-in-charge.				
(i)	25 mm dia	2	Each		
(ii)	20 mm dia	1	Each		
(iii)	15 mm dia	1	Each		
<b>Wash Basin &amp; Sink</b>					
29	Dismantling wash basin with brackets with or without waste fittings.	70	Each		
30	Refixing wash basin with brackets with or without waste fittings.	60	each		
31	Dismantling sink with brackets with or without waste fittings.	30	each		
32	Refixing sink with brackets with or without waste fittings.	30	each		
33	Porcelain wash basin 550 mm x 400 mm size supplied fitted and fixed with bracket, including painting on bracket, including poly waste and coupling and with 1.15 cm long waste pipe	14	Nos		
34	Supplying, fitting and fixing pedestal of for wash basin (white)	6	Each		
35	Stainless Steel sink supplied fitted and fixed of with C.P waste, Coupling, Sink waste pipe 1.15 cm long & C.I bracket. standerd quality. Size 600mm x 450mm x 200mm	10	Nos		
36	Stainless Steel sink with drain board supplied fitted and fixed of with C.P waste, Coupling, Sink waste pipe 1.15 cm long & C.I bracket. standerd quality. Size	5	Nos		
37	Supplying, fitting and fixing White Vitreous China Sink in position on C.I. brackets including two coats of painting of brackets.Plain edge sink with overflow (i) 610 mm X 450 mm X 250 mm	1	Nos		
38	Supplying,fitting and fixing 15 mm dia P.V.C. CONNECTOR white flexible, with both ends coupling with heavy brass/C.P/poly nut, 15 mm dia.				
	450 mm long	150	Nos		
39	Supply, Fitting & fixing of complete 32 mm PTMT Bottle waste tap	5	Nos		
40	Supply, Fitting & fixing of 32 mm dia P.V.C corrugated waste pipe for basin or sink with coupled at one end 1.15 cm long.	200	Nos		
41	Supplying, fitting and fixing Waste of approved make				
a	C.P over brass				
i)	32 mm	10	Each		
ii)	40 mm	15	Each		
b	Supplying, fitting and fixing Waste				
i)	32 mm	15	Each		
ii)	40 mm	10	Each		

42	Supplying, fitting and fixing of polythene coupling 32 mm size	30	Each		
43	Supplying, fitting and fixing of polythene coupling 40 mm size	15	Each		
44	Supplying, fitting, fixing C.I. Bracket including two coats of painting.				
a	Wash basin	20	Nos		
b	sink	10	Nos		
45	Cleaning wash basin/sink with acid, washing powder etc	30	Each		
<b>P.V.C Tank</b>					
46	Labour for hoisting plastic water storage tank up to 1500 litre capacity	13	Each		
47	Labour for punching hole in plastic water storage tank up to 50 mm dia.	15	Each		
48	Labour for lowering plastic water storage tank and stacking in places as directed up to 1500 litre capacity	10	Each		
49	Supplying P.V.C water storage tank of approved quality with closed top with lid (Black) - Multilayer	10000	Ltrs		
50	Supplying, fitting and fixing of P.V.C tank cover (Black) (for 300 litre to 5000 litre P.V.C tanks) with necessary hinge, serews and locking arrangement	25	Each		
51	Dismantling ball cock and refixing the same after repair including straightening lever and renewing split pin.				
a	15 mm dia	3	Nos		
b	20 mm dia	15	Nos		
c	25 mmdia	20	Nos		
d	40 mm dia	5	Nos		
e	50mm dia	10	Nos		
52	Supplying , fitting, fixing in position ball cock set				
a	20 mm dia	20	Nos		
b	25 mmdia	10	Nos		
c	40 mm dia	2	Nos		
d	50mm dia	10	Nos		
53	Supplying , fitting, fixing in position ball cocks body (without Rod & Ball)				
a	20 mm dia	15	Nos		
b	25 mmdia	5	Nos		
c	40 mm dia	2	Nos		
d	50mm dia	5	Nos		
54	Supplying , fitting, fixing in position ball cocks rod (Aluminium)				
a	20 mm dia	12	Nos		
b	25 mmdia	6	Nos		
c	40 mm dia	5	Nos		
d	50mm dia	4	Nos		
55	Supplying , fitting, fixing in position ball cocks ball (HDPE with brass nut)				
a	20 mm dia	4	Nos		
b	25 mmdia	3	Nos		
c	40 mm dia	2	Nos		

	d	50mm dia	10	Nos		
	56	Dismantling and refixing tank including disconnecting and refitting pipe connection in position.	15	each		
<b>Chromium plated Taps</b>						
	57	Supplying, fitting and fixing Chromium plated Bib Cock short body	90	Each		
	58	Supplying, fitting and fixing Chromium plated Bib Cock long body with wall flange with aerator	10	Each		
	59	Supplying, fitting and fixing Chromium plated Pillar Cock Super Deluxe with Aerator	15	Each		
	60	Supplying, fitting and fixing Chromium plated Stop Cock	15	Each		
	61	Supplying, fitting and fixing Chromium plated angular Stop Cock with wall flange	15	Each		
	62	Supplying, fitting and fixing Chromium plated Concealed Stop Cock	1	Each		
	63	Supplying, fitting and fixing Chromium plated round shower 100 mm dia with revolving joint	8	Each		
	64	Supplying, fitting and fixing Chromium plated shower arm 240 mm long	8	Each		
	65	Supplying, fitting and fixing Chromium plated Hand shower	10	Each		
	66	Flexible Tube 8mm dia & 1.5M Long with Nuts	14	Each		
	67	Supplying, fitting and fixing CP Health Faucet with 1mtr Flexible Tube with Wall Hook	20	Each		
	68	Supplying, fitting and fixing CP Centre hole Basin mixture with regular spout without popup waste system with 450 mm long braided hoses.	2	Each		
	69	Supplying, fitting and fixing CP Two Way Bib Cock with Wall Flange	6	each		
	70	Supplying, fitting and fixing CP Sink Cock With Swinging Casted Spout (Table Mounted Model) With Aerator	5	No		
	71	Supplying, fitting and fixing 15 mm swan neck tap with left & right hand operating nob with aerator	4	No		
	72	Supplying, fitting and fixing CP Wall Mixer Telephone Shower Arrangement Only With Crutch (With Bush & Piston Delux Divertor fitting) With bend, nipple, offset, Aerator	2	No		

73	Supplying, fitting and fixing CP Wall Mixer With 115mm Long Bend Pipe For Connection To Overhead Shower (With Bush & Piston Divertor Fitting) With With bend, nipple, offset, Aerator	6	No		
74	Supplying, fitting and fixing CP Wall Mixer 3 In 1 System With 115mm Bend Pipe, Aerator and Small Knob	5	No		
75	Supplying, fitting and fixing CP Wall Mixer Non-Telephonic Shower System	2	no		
76	Supplying, fitting and fixing CP Florentine Single Lever Surgical Purpose Elbow Action Basin Mixer with Extended Operating Lever without Popup Waste System with 450mm Long Braided Hoses	1	No		
77	Renewing brass spindle for CP bib cock, pillar cock, stop cock etc	75	Each		
78	Renewing brass spindle for CP concealed stop cock etc	4	Each		
79	Rewashing stop cock/ bib cock/ push cock/ pillar cock including gland packing/washer if necessary.	50	Each		
80	Dismantling and refixing bib cock /stop cock./Shower	450	Each		
81	Labour charges for rewashing, dismantling, replacement of extension nipple, offset bend and refixing of wall mixer	50	Nos		
82	Supplying, fitting and fixing CP Wall flange, CP hook for health faucet, hand shower etc.	8	each		
83	Supplying, fitting and fixing liquid soap Dispenser	6	Each		
84	Supplying, fitting and fixing soap dish holder.	4	Each		
85	Supplying, fitting and fixing CP Clamp				
	15 mm to 40 mm	100	each		
86	Supplying, fitting and fixing 15 mm dia CP Extension nipple				
	50 mm to 75 mm	50	each		
87	Supplying, fitting and fixing CP offset for wall mixer	15	Each		
88	Supplying, fitting and fixing CP bend for wall mixer	10	each		
89	Dismantling and refixing shower rose after cleaning	20	Each		
<b>P.V.C taps &amp; others</b>					
90	Supplying, fitting and fixing PTMT bib cock (15mm)	80	Each		
91	Supplying, fitting and fixing PTMT stop cock (Male/female thread)(15mm)	30	Each		



<b>92</b>	Supplying, fitting and fixing PTMT angular stop cock (15mm)	15	Each		
<b>93</b>	Supplying, fitting and fixing PTMT pillar cock (15mm)	12	Each		
<b>94</b>	Supplying, fitting and fixing 3" round PTMT overhead Swiveling Shower (15mm)	15	Each		
<b>95</b>	Health faucet with 1.5 mtr tube and hook	8	Each		
<b>96</b>	Supplying, fitting and fixing Health faucet body	8	Each		
<b>97</b>	Supplying, fitting and fixing 1.5 mtr tube	10	Each		
<b>98</b>	Supplying, fitting and fixing 1 mtr tube	10	Each		
<b>99</b>	Supplying, fitting and fixing Poly Ball Valve				
a	15 mm dia	5	Each		
b	20 mm dia	25	Each		
c	25 mm dia	15	Each		
d	40 mm dia	3	Each		
e	50 mm dia	5	Each		
<b>100</b>	Supplying, fitting and fixing Poly Clamp				
a	20 mm dia	25	Each		
b	25 mm dia	20	Each		
c	40 mm dia	10	Each		
d	50 mm dia	10	Each		
<b>101</b>	Supplying, fitting and fixing gunmetal wheel valve of approved brand and make tested to 21 kg per sq. cm. (for water lines only).				
a	15 mm dia	1	each		
b	20 mm dia	3	each		
c	25 mm dia	3	each		
d	32 mm dia	1	each		
e	40 mm dia	1	each		
f	50 mm dia	2	each		
g	80 mm dia	1	each		
<b>102</b>	Supplying, fitting and fixing 15 mm dia CI bib cock	40	Each		
<b>103</b>	Supplying, fitting and fixing 15 mm dia CI Stop cock	20	Each		
<b>104</b>	Supplying, fitting and fixing CI Ball Valve				
a	15 mm	5	each		
b	20 mm	15	each		
c	25 mm	15	each		
d	32 mm	3	each		
e	40 mm	2	each		
f	50 mm	2	each		
g	80 mm	1	each		

### Cistern

105	Supplying, fitting and fixing 10 litre P.V.C. low-down cistern (White colour) Single flush" or its equivalent with P.V.C. fittings complete,C.I. brackets including two coats of painting to bracket etc.	15	Nos		
106	Dismantling cistern including disconnecting all pipes, accessories and fittings.Up to 10 litre	40	Nos		
107	Refixing cistern including brackets as necessary including cleaning and adjustment of all parts up to 10 lit or new cistern	35	Nos		
108	Supplying,fitting and fixing 32 mm dia. Polythene Flush Pipe with necessary fixing materials and clamps complete.	25	Nos		
102	Refixing flush pipe of water closet	18	Nos		
110	Repairing of flushing cisterns including replacement of syphon, washer,ball cock, handle etc	147	Nos		
111	Supplying of syphon for P.V.C Cistern	25	Nos		
112	Changing the rubber washer for syphon of P.V.C Cistern including takingout and refixing necessary parts	100	Nos		
113	Supplying of Poly handle for P.V.C Cistern	20	Nos		
114	Supplying,fitting and fixing of Ball cock set for P.V.C Cistern	10	Nos		
115	Supplying fitting fixing of cistern clamp for P.V.C Cistern approved by	20	Set		
<b>Supply Labour</b>					
116	Supplying of labour as per day to basis for attending emergency jobs including cutting road,hard rock etc. for exposing Gi /C.I pipeline,removing mud,slushy earth, bailing out water etc.reqd. for jobs in connection with water supply maintenance under specific requirement from EIC.				
a	Mazdoor	975	Nos		
b	Assistant Fitter	320	Nos		
<b>Miscellaneous</b>					
117	Supplying of M-seal	10	100 ml		
118	Labour for replacing the C.I valves including cutting earth, dewatering, replacing the nut bolts/rubber sheet etc.				
a	75 mm to 100 mm dia	6	each		
b	150 mm dia	20	Each		
c	200 mm dia	4	Each		
119	Repairing damaged lead caulked joint by recasting and hammering the same with additional lead and lead wool.	15	Each		
120	Repairing of flange joint after dismantling the joints, dewatering, removing the unserviceable rubbr instertion and providing new rubber insertion including replacing the necessary nut bolts etc.	20	Each		
121	Reapiring charges for greasing C.I valves, repalcing the SS spindle for valves, replacing the gland packing etc	15	Each		
122	Labour for water supply checking in the campus area	30	Each Tank		

123	Renewing lead joint to CI pipes and specials and spun yarn including reusing 50% of old and using 50% new lead of approved quality new span yarn and caulking the same properly including labour charges for dismantling the existing damaged portion complete as per direction of EIC. lead, spun yarn, fuel and other materials will be supplied by the Agency.				
a	80mm dia to 150mm dia	10	each		
b	200mm dia to 250mm dia	10	each		
<b>TOTAL= Rs.</b>					
<b>Say, Rs.</b>					

**WATER WORKS SECTION  
IIT Kharagpur**

**TENDER PAPER ISSUED TO:**

**NAME OF WORK :** Annual repair and maintenance in connection with plumbing & water supply at Old Residential Campus for the year 2017-2018.

**Completion Time:** 01 Year.

**Submission of Tender Paper:** 06<sup>th</sup> Oct, 2017 upto 3:00 P.M.

## Estimate for Annual repair and maintenance in connection with plumbing & water supply at Old Residential Campus for the year 2017-2018

SI	Description	Qty	Unit	Rate (Rs.)	Amt
<b>Civil Items</b>					
1	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete.				
a	Depth of excavation not exceeding 1,500 mm.	25.000	Cum		
2	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work)				
	With earth obtained from excavation of foundation.	25.000	Cum		
3	Brick work with 1st class bricks in cement mortar (1:6)				
a	In foundation & plinth.	2.000	Cum		
b	In superstructure, ground floor	1.000	Cum		
4	125 mm thick brickwork with 1st class bricks in cement mortar (1:4)	1.000	Sqm		
5	Ordinary Cement concrete (mix 1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any, in ground floor as per relevant IS codes.				
	With local hard blackstone variety chips (crusher broken)	0.500	Cum		
6	15 mm thick plaster with cement mortar (1:4)	5.000	Sqm		
7	20 mm thick plaster with cement mortar (1:4)	15.000	Sqm		
8	Neat cement punning about 1.5mm thick in wall,dado,window sill,floor etc. NOTE:Cement 0.152 cu.m per100 sq.m.	15.000	Sqm		
9	Dismantling all types of masonry excepting cement concrete plain or reinforced, stacking serviceable materials at site and removing rubbish as directed within a lead of 75 m.				
	Upto 1st Floor	1.000	Cum		
10	Dismantling R.C. floor, roof, beams etc. including cutting rods and removing rubbish as directed within a lead of 75 m. including stacking of steel bars.				
	Upto 1st Floor	0.500	Cum		
11	Cutting holes and subsequent mending good damages.				
	Diameter upto 150 mm in brick wall	15	Mtr		
12	Cutting chase upto 125 x 150 mm. and subsequent mending of damages.				
a	In brick wall	2.000	Mtr		
b	In concrete wall	2.000	Mtr		
<b>Pipes , fittings &amp; ferrule</b>					
13	Dismantling G.I or P.V.C Pipe with fittings carefully including removing to any distance and stacking				
a	15 mm dia to 32 mm dia	500.000	Mtr		
b	40 mm dia to 50 mm dia	99.000	Mtr		
c	80 mm dia to 100 mm dia	30.000	Mtr		

14	Refixing of G.I or P.V.C Pipe with fitting after cleaning interior wall including mending good damages including cost of jointing materials where necessary				
a	15 mm dia	201.000	Mtr		
b	20 mm dia	100.000	Mtr		
c	25 mm dia	60.000	Mtr		
d	32 mm dia	18.000	Mtr		
e	40 mm dia	50.000	Mtr		
f	50 mm dia	75.000	Mtr		
g	80 mm dia	18.000	Mtr		
15	Supplying, fitting and fixing G.I. pipes of with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrew, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. <b>For Exposed Work</b>				
a	15 mm dia. medium quality	25.000	Mtr		
b	20 mm dia. medium quality	24.000	Mtr		
c	25 mm dia. medium quality	30.000	Mtr		
d	32 mm dia. medium quality	12.000	Mtr		
e	40 mm dia. medium quality	20.000	Mtr		
f	50 mm dia. medium quality	30.000	Mtr		
16	Removing chokage in G.I. pipe including cleaning pipe.				
a	15 mm dia	31	Mtr		
b	20 mm dia	20	Mtr		
c	25 mm dia	15	Mtr		
d	32 mm dia	6	Mtr		
e	40 mm dia	10	Mtr		
f	50 mm dia	30	Mtr		
g	80 mm dia	6	Mtr		
17	Supplying, fitting and fixing PVC pipes (Schedule-40) of of (medium duty) conforming to ASTMD - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, longscrew, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads,fitting, fixing etc. complete in all respect including cost of all necessary fittings as required,jointing materials like teflon, solvent cement etc. in any position above ground. (Payment will be made on the centre line measurements of total pipe line including all specials. No separate payment will be made for accesories, specials.) <b>For Exposed Work</b>				
a	15 mm dia	250.000	Mtr		
b	20 mm dia	150.000	Mtr		
c	25 mm dia	125.000	Mtr		
d	32 mm dia	12.000	Mtr		
e	40 mm dia	18.000	Mtr		
f	50 mm dia	75.000	Mtr		

18	Supplying, fitting and fixing PVC pipes (Schedule-40) for <b>underground work</b> of approved make (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials like teflon, solvent cement etc. cutting trenches upto 1.5 metre below surface in all sorts of soil and refilling the same as directed complete in all respect. (Payment will be made on the centre line measurement of the total pipe line including all specials No separate payment will be made for accessories, specials.)				
a	20 mm dia	12.000	Mtr		
b	25 mm dia	12.000	Mtr		
c	32 mm dia	12.000	Mtr		
d	40 mm dia	24.000	Mtr		
e	50 mm dia	60.000	Mtr		
f	80 mm dia	12.000	Mtr		
19	Supply, fitting, fixing of High Density Poly-ethylene Pipe conforming to IS - 4984 - 1985 (6 Kg / Sq.Cm.) (Working Pressure) complete in all respect including cost of jointing materials like solvent cement etc. in any position above ground.				
a	40 mm dia	30.000	Mtr		
b	50 mm dia	50.000	Mtr		
c	63 mm dia	30.000	Mtr		
20	Supplying fitting fixing Poly Push fittings				
a	Push Elbow 32 mm dia	5	Nos		
b	Push Elbow 40 mm dia	12	Nos		
c	Push Elbow 50 mm dia	50	Nos		
d	Push Elbow 63 mm dia	10	Nos		
e	Push Socket 32 mm dia	5	Nos		
f	Push socket 40 mm dia	6	Nos		
g	Push Socket 50 mm dia	5	Nos		
h	Push Socket 63 mm dia	5	Nos		
i	Push Tee 32 mm dia	4	Nos		
j	Push Tee 40 mm dia	10	Nos		
k	Push Tee 50 mm dia	10	Nos		
l	Push Tee 63 mm dia	5	Nos		
21	Providing, fitting, fixing G.I fittings				
(i)	<b>Socket</b>				
a	15 mm dia	20	Nos		
b	20 mm dia	10	Nos		
c	25 mm dia	12	Nos		
d	32 mm dia	4	Nos		
e	40 mm dia	5	Nos		
f	50 mm dia	5	Nos		
g	80 mm dia	2	Nos		
(ii)	<b>Reducing Socket</b>				
a	20 mm dia	15	Nos		
b	25 mm dia	10	Nos		
c	32 mm dia	4	Nos		
d	40 mm dia	2	Nos		

e	50 mm dia	2	Nos		
f	80 mm dia	2	Nos		
(iii)	<b>Tee</b>				
a	15 mm dia	15	Nos		
b	20 mm dia	12	Nos		
c	25 mm dia	6	Nos		
d	32 mm dia	2	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	2	Nos		
g	80 mm dia	1	Nos		
(iv)	<b>Reducing Tee</b>				
a	20 mm dia	12	Nos		
b	25 mm dia	9	Nos		
c	32 mm dia	2	Nos		
d	40 mm dia	2	Nos		
e	50 mm dia	3	Nos		
f	80 mm dia	1	Nos		
(v)	<b>Union</b>				
a	15 mm dia	30	Nos		
b	20 mm dia	15	Nos		
c	25 mm dia	10	Nos		
d	32 mm dia	3	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	10	Nos		
g	80 mm dia	2	Nos		
(vi)	<b>Check nut</b>				
a	15 mm dia	5	Nos		
b	20 mm dia	5	Nos		
c	25 mm dia	5	Nos		
d	32 mm dia	2	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	1	Nos		
g	80 mm dia	1	Nos		
(vii)	<b>Elbow</b>				
a	15 mm dia	25	Nos		
b	20 mm dia	10	Nos		
c	25 mm dia	5	Nos		
d	32 mm dia	3	Nos		
e	40 mm dia	2	Nos		
f	50 mm dia	4	Nos		
g	80 mm dia	2	Nos		
(viii)	<b>Reducing Elbow</b>				
a	20 mm dia	12	Nos		
b	25 mm dia	10	Nos		
c	32 mm dia	3	Nos		
d	40 mm dia	2	Nos		
e	50 mm dia	5	Nos		
f	80 mm dia	2	Nos		
(ix)	<b>Flange</b>				
a	50 mm dia	2	Nos		
b	80 mm dia	2	Nos		



(x)	<b>Nipple</b>				
a	15 mm X 50 mm	100	Nos		
b	15 mm X 75 mm	80	Nos		
c	20 mm X 50 mm	20	Nos		
d	25 mm X 50 mm	20	Nos		
e	40 mm X 50 mm	10	Nos		
f	50 mm X 75 mm	10	Nos		
g	80 mm X 100 mm	10	Nos		
<b>22</b>	Supplying, fitting and fixing M.S Plug				
a	15 mm dia	25	Nos		
b	20 mm dia	15	Nos		
c	25 mm dia	10	Nos		
d	40 mm dia	5	Nos		
e	50 mm dia	5	Nos		
f	80 mm dia	2	Nos		
<b>23</b>	Supplying, fitting and fixing M.S Hook	40	kg		
<b>24</b>	Dismantling ferrule with all pipe connection	4	Each Set		
<b>25</b>	Dismantling existing ferrule with fittings and refixing same after cleaning.	4	Each Set		
<b>26</b>	Drilling and tapping C.I. main.				
a	Upto 15 mm	2	set		
b	Above 15 mm upto 25 mm	4	set		
c	Above 25 mm	2	set		
<b>27</b>	Plugging up C.I. main with necessary materials & Labour Complete	4	set		
<b>28</b>	Supplying, fitting and fixing brass ferrule including connection with P.V.C. pipe of approved make upto 450 mm long with plumbing joint,brass over C.P. coupling at both ends, with cap and lining complete in all respect, including cutting trenches in all sorts of soil and filling up trenches as per direction of the Engineer-in-charge.				
(i)	25 mm dia	2	Each		
(ii)	20 mm dia	1	Each		
(iii)	15 mm dia	1	Each		
<b>Wash Basin &amp; Sink</b>					
<b>29</b>	Dismantling wash basin with brackets with or without waste fittings.	60	Each		
<b>30</b>	Refixing wash basin with brackets with or without waste fittings.	60	each		
<b>31</b>	Dismantling sink with brackets with or without waste fittings.	30	each		
<b>32</b>	Refixing sink with brackets with or without waste fittings.	30	each		
<b>33</b>	Porcelain wash basin 550 mm x 400 mm size supplied fitted and fixed with bracket, including painting on bracket, including poly waste and coupling and with 1.15 cm long waste pipe	10	Nos		
<b>34</b>	Supplying, fitting and fixing pedestal for wash basin (white)	5	Each		
<b>35</b>	Stainless Steel sink supplied fitted and fixed with C.P waste, Coupling, Sink waste pipe 1.15 cm long & C.I bracket. standerd quality. Size 600mm x 450mm x 200mm	10	Nos		
<b>36</b>	Stainless Steel sink with drain board supplied fitted and fixed of with C.P waste, Coupling, Sink waste pipe 1.15 cm long & C.I bracket. standerd quality. Size	3	Nos		
<b>37</b>	Supplying, fitting and fixing White Vitreous China Sink in position on C.I. brackets including two coats of painting of brackets.Plain edge sink with overflow (i) 610 mm X 450 mm X 250 mm	1	Nos		

38	Supplying,fitting and fixing 15 mm dia P.V.C. CONNECTOR white flexible, with both ends coupling with heavy brass/C.P/poly nut, 15 mm dia.				
	450 mm long	100	Nos		
39	Supply, Fitting & fixing of complete 32 mm PTMT Bottle waste tap	15	Nos		
40	Supply, Fitting & fixing of 32 mm dia P.V.C corrugated waste pipe for basin or sink with coupled at one end 1.15 cm long.	100	Nos		
41	Supplying, fitting and fixing Waste of approved make				
a	C.P over brass				
i)	32 mm	10	Each		
ii)	40 mm	15	Each		
b	Supplying, fitting and fixing Waste of				
i)	32 mm	15	Each		
ii)	40 mm	10	Each		
42	Supplying, fitting and fixing of polythene coupling 32 mm size	30	Each		
43	Supplying, fitting and fixing of polythene coupling 40 mm size	15	Each		
44	Supplying, fitting, fixing C.I. Bracket including two coats of painting.				
a	Wash basin	20	Nos		
b	Sink	10	Nos		
45	Cleaning wash basin/sink with acid, washing powder etc	30	Each		
<b>P.V.C Tank</b>					
46	Labour for hoisting plastic water storage tank up to 1500 litre capacity	10	Each		
47	Labour for punching hole in plastic water storage tank up to 50 mm dia.	15	Each		
48	Labour for lowering plastic water storage tank and stacking in places as directed up to 1500 litre capacity	10	Each		
49	Supplying P.V.C water storage tank of approved quality with closed top with lid (Black) - Multilayer	8000	Ltrs		
50	Supplying, fitting and fixing of P.V.C tank cover (Black) (for 300 litre to 5000 litre P.V.C tanks) with necessary hinge, serews and locking arrangement	15	Each		
51	Dismantling ball cock and refixing the same after repair including straightening lever and renewing split pin.				
a	15 mm dia	3	Nos		
b	20 mm dia	10	Nos		
c	25 mmdia	10	Nos		
d	40 mm dia	5	Nos		
e	50mm dia	10	Nos		
52	Supplying , fitting, fixing in position ball cock set				
a	20 mm dia	20	Nos		
b	25 mmdia	10	Nos		
c	40 mm dia	2	Nos		
d	50mm dia	10	Nos		
53	Supplying , fitting, fixing in position ball cocks body (without Rod & Ball)				
a	20 mm dia	10	Nos		

	b	25 mmdia	5	Nos		
	c	40 mm dia	2	Nos		
	d	50mm dia	5	Nos		
	<b>54</b>	Supplying , fitting, fixing in position ball cocks rod (Aluminium)				
	a	20 mm dia	12	Nos		
	b	25 mmdia	6	Nos		
	c	40 mm dia	5	Nos		
	d	50mm dia	4	Nos		
	<b>55</b>	Supplying , fitting, fixing in position ball cocks ball (HDPE with brass nut)				
	a	20 mm dia	4	Nos		
	b	25 mmdia	3	Nos		
	c	40 mm dia	2	Nos		
	d	50mm dia	10	Nos		
	<b>56</b>	Dismantling and refixing tank including disconnecting and refitting pipe connection in position.	20	each		
<b>Chromium plated Taps</b>						
	<b>57</b>	Supplying, fitting and fixing Chromium plated Bib Cock short body	50	Each		
	<b>58</b>	Supplying, fitting and fixing Chromium plated Bib Cock long body with wall flange with aerator	5	Each		
	<b>59</b>	Supplying, fitting and fixing Chromium plated Pillar Cock Super Deluxe with Aerator	10	Each		
	<b>60</b>	Supplying, fitting and fixing Chromium plated Stop Cock	10	Each		
	<b>61</b>	Supplying, fitting and fixing Chromium plated angular Stop Cock with wall flange	10	Each		
	<b>62</b>	Supplying, fitting and fixing Chromium plated Concealed Stop Cock	1	Each		
	<b>63</b>	Supplying, fitting and fixing Chromium plated round shower 100 mm dia with revolving joint	6	Each		
	<b>64</b>	Supplying, fitting and fixing Chromium plated shower arm 240 mm long	8	Each		
	<b>65</b>	Supplying, fitting and fixing Chromium plated Hand shower 70mm dia Round Shape Single flow	10	Each		
	<b>66</b>	Flexible Tube 8mm dia & 1.5M Long with Nuts	20	Each		
	<b>67</b>	Supplying, fitting and fixing CP Health Faucet with 1mtr Flexible Tube with Wall Hook	15	Each		
	<b>68</b>	Supplying, fitting and fixing CP Centre hole Basin mixture with regular spout without popup waste system with 450 mm long braided hoses.	2	Each		
	<b>69</b>	Supplying, fitting and fixing CP Two Way Bib Cock with Wall Flange	5	each		
	<b>70</b>	Supplying, fitting and fixing CP Sink Cock With Swinging Casted Spout (Table Mounted Model) With Aerator	3	No		
	<b>71</b>	Supplying, fitting and fixing 15 mm swan neck tap with left & right hand operating nob with aerator	1	No		
	<b>72</b>	Supplying, fitting and fixing CP Wall Mixer Telephone Shower Arrangement Only With Crutch (With Bush & Piston Delux Divertor fitting) With bend, nipple, offset, Aerator	1	No		
	<b>73</b>	Supplying, fitting and fixing CP Wall Mixer With 115mm Long Bend Pipe For Connection To Overhead Shower (With Bush & Piston Divertor Fitting) With With bend, nipple, offset, Aerator	6	No		
	<b>74</b>	Supplying, fitting and fixing CP Wall Mixer 3 In 1 System With 115mm Bend Pipe, Aerator and Small Knob	3	No		

75	Supplying, fitting and fixing CP Wall Mixer Non-Telephonic Shower System	2	no		
76	Supplying, fitting and fixing CP Florentine Single Lever Surgical Purpose Elbow Action Basin Mixer with Extended Operating Lever without Popup Waste System with 450mm Long Braided Hoses	1	No		
77	Renewing brass spindle for CP bib cock, pillar cock, stop cock etc	75	Each		
78	Renewing brass spindle for CP concealed stop cock etc	4	Each		
79	Rewashing stop cock/ bib cock/ push cock/ pillar cock including gland packing/washer if necessary.	30	Each		
80	Dismantling and refixing bib cock /stop cock./Shower	350	Each		
81	Labour charges for rewashing, dismantling, replacement of extension nipple, offset bend and refixing of wall mixer	30	Nos		
82	Supplying, fitting and fixing CP Wall flange, CP hook for health faucet, hand shower etc.	7	each		
83	Supplying, fitting and fixing liquid soap Dispenser	4	Each		
84	Supplying, fitting and fixing soap dish holder.	2	Each		
85	Supplying, fitting and fixing CP Clamp				
	15 mm to 40 mm	100	each		
86	Supplying, fitting and fixing 15 mm dia CP Extension nipple				
	50 mm to 75 mm	30	each		
87	Supplying, fitting and fixing CP offset for wall mixer	10	Each		
88	Supplying, fitting and fixing CP bend for wall mixer	8	each		
89	Dismantling and refixing shower rose after cleaning	15	Each		
<b>P.V.C taps &amp; others</b>					
90	Supplying, fitting and fixing PTMT bib cock (15mm)	70	Each		
91	Supplying, fitting and fixing PTMT stop cock (Male/female thread)(15mm)	20	Each		
92	Supplying, fitting and fixing PTMT angular stop cock (15mm)	10	Each		
93	Supplying, fitting and fixing PTMT pillar cock (15mm)	12	Each		
94	Supplying, fitting and fixing 3" round PTMT overhead Swiveling Shower (15mm)	20	Each		
95	Health faucet with 1.5 mtr tube and hook	10	Each		
96	Supplying, fitting and fixing Health faucet body	10	Each		
97	Supplying, fitting and fixing 1.5 mtr tube	10	Each		
98	Supplying, fitting and fixing 1 mtr tube	10	Each		
99	Supplying, fitting and fixing Poly Ball Valve				
a	15 mm dia	5	Each		
b	20 mm dia	25	Each		
c	25 mm dia	15	Each		
d	40 mm dia	3	Each		
e	50 mm dia	5	Each		
100	Supplying, fitting and fixing Poly Clamp				
a	20 mm dia	25	Each		
b	25 mm dia	20	Each		
c	40 mm dia	10	Each		
d	50 mm dia	10	Each		
101	Supplying, fitting and fixing gunmetal wheel and make tested to 21 kg per sq. cm. (for water lines only).				
a	15 mm dia	1	each		

b	20 mm dia	3	each		
c	25 mm dia	3	each		
d	32 mm dia	1	each		
e	40 mm dia	1	each		
f	50 mm dia	2	each		
g	80 mm dia	1	each		
<b>102</b>	Supplying, fitting and fixing 15 mm dia CI bib cock	30	Each		
<b>103</b>	Supplying, fitting and fixing 15 mm dia CI Stop cock	15	Each		
<b>104</b>	Supplying, fitting and fixing CI Ball Valve				
a	15 mm	5	each		
b	20 mm	15	each		
c	25 mm	15	each		
d	32 mm	3	each		
e	40 mm	2	each		
f	50 mm	2	each		
g	80 mm	1	each		
<b>105</b>	Supplying, fitting and fixing 10 litre P.V.C. low-down cistern (White colour) Single flush" or its equivalent with P.V.C. fittings complete, C.I. brackets including two coats of painting to bracket etc.	18	Nos		
<b>106</b>	Dismantling cistern including disconnecting all pipes, accessories and fittings. Up to 10 litre	30	Nos		
<b>107</b>	Refixing cistern including brackets as necessary including cleaning and adjustment of all parts up to 10 lit or new cistern	32	Nos		
<b>108</b>	Supplying, fitting and fixing 32 mm dia. Polythene Flush Pipe with necessary fixing materials and clamps complete.	25	Nos		
<b>102</b>	Refixing flush pipe of water closet	20	Nos		
<b>110</b>	Repairing of flushing cisterns including replacement of syphon, washer, ball cock, handle etc	100	Nos		
<b>111</b>	Supplying of syphon for P.V.C	15	Nos		
<b>112</b>	Changing the rubber washer for syphon of P.V.C Cistern including taking out and refixing necessary parts	80	Nos		
<b>113</b>	Supplying of Poly handle for P.V.C Cistern	20	Nos		
<b>114</b>	Supplying, fitting and fixing of Ball cock set for P.V.C Cistern	10	Nos		
<b>115</b>	Supplying fitting fixing of cistern clamp for P.V.C Cistern	20	Set		
<b>116</b>	Supplying of labour as per day to basis for attending emergency jobs including cutting road, hard rock etc. for exposing GI / C.I pipeline, removing mud, slushy earth, bailing out water etc. reqd. for jobs in connection with water supply maintenance under specific requirement from EIC.				
a	Mazdoor	954	Nos		
b	Assistant Fitter	115	Nos		
<b>117</b>	Supplying of M-seal	10	100 ml		
<b>118</b>	Labour for replacing the C.I valves including cutting earth, dewatering, replacing the nut bolts/rubber sheet etc.				
a	75 mm to 100 mm dia	4	each		
b	150 mm dia	10	Each		
c	200 mm dia	2	Each		
<b>119</b>	Repairing damaged lead caulked joint by recasting and hammering the same with additional lead and lead wool.	10	Each		

120	Repairing of flange joint after dismantling the joints, dewatering, removing the unserviceable rubber insertion and providing new rubber insertion including replacing the necessary nut bolts etc.	10	Each		
121	Repairing charges for greasing C.I valves, replacing the SS spindle for valves, replacing the gland packing etc	11	Each		
122	Labour for water supply checking in the campus area	50	Each Tank		
123	Renewing lead joint to CI pipes and specials and spun yarn including reusing 50% of old and using 50% new lead of approved quality new span yarn and caulking the same properly including labour charges for dismantling the existing damaged portion complete as per direction of EIC. lead, spun yarn, fuel and other materials will be supplied by the Agency.				
a	80mm dia to 150mm dia	10	each		
b	200mm dia to 250mm dia	10	each		
				<b>TOTAL= Rs.</b>	
				<b>Say, Rs.</b>	

**WATER WORKS SECTION  
IIT Kharagpur**

**TENDER PAPER ISSUED TO:**

**NAME OF WORK :** Operation & Maintenance of Iron Removal filters for the year 2017 – 18.

**Completion Time:** 01 Year.

**Submission of Tender Paper: 06<sup>th</sup> Oct, 2017 upto 3:00 P.M.**

Operation & Maintenance of Iron Removal filters for the year 2017 – 18.

Sl	Item	Quantity	Unit	Rate	Amount (Rs.)
1	Operation of submersible pumps at following locations ( <i>Tank-2,8,9,12,13, MMM Hall, Zakir Hussain Hall, Dandakaranya, Radder Tank, B.R Ambedkar Hall, Radder Tank, Nalanda Complex</i> ) on two shift basis this includes operation of pumps & valves and all other related activities, including backwashing of Iron Removal Filtration Plants, Activated Carbon filters as per direction	250	Per day	4985.00	
2	Clearing compound premises of shrubs, plants, jungles etc. by cutting and removing as directed (Specific permission of Engineer-in-Charge prior to execution will be necessary)	8594.7	Sqm	11.80	
3	Replacement of filter media and MnO <sub>2</sub> as and when basis per instruction of EIC	5	Each Filter	9066.50	
				<b>Total=</b>	<b>Rs</b>
				<b>Say=</b>	<b>Rs</b>