



**INDIAN INSTITUTE OF TECHNOLOGY GOA GEC  
CAMPUS, FARMAGUDI, PONDA, GOA, 403401**

**TENDER DOCUMENT FOR ANNUAL MAINTENANCE CONTRACT  
OF CIVIL WORKS AT IIT GOA ADMINISTRATION BUILDING, 640  
CAPACITY HOSTEL, OFFICES, ACADEMIC BLOCKS,  
CLASSROOMS, LABORATORIES, FACULTY CABINS, D-2/C  
QUARTERS, RAJMUDRA & TARANGAN BUILDING FLATS.**

**NIT: IITGOA/C&EMD/2020/014 DT.23-07-2020**



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## PART A (TECHNICAL BID)

### 1. NOTICE INVITING TENDER

#### 1.1. INTRODUCTION

Indian Institute of Technology (IIT) Goa, invites sealed tenders from the eligible contractors for various civil related maintenance and repair works of:

1) Administration building, 2) 640 Capacity Hostel, 3) Offices, 4) Academic Blocks, 5) Classrooms, 6) Laboratories 7) Faculty Cabins 8) D-2/C Quarters 9) Rajmudra & Tarangan Building Flats. Particulars of the work are as follows

#### 1.2 PARTICULARS

1.NIT No	IITGOA/C&EMD/2020/014
2.Name of work	Annual Maintenance & Repair works- Civil
3.Location of work	1) Administration building, 2) 640 Capacity Hostel, 3) Offices, 4) Academic Blocks, 5) Classrooms, 6) Laboratories 7) Faculty Cabins 8) D-2/C Quarters 9) Rajmudra & Tarangan Building Flats. Particulars of the work are as follows
4.Estimated Cost ( Including GST)	Rs. 15,07,092/-
5.Earnest Money Deposit	Rs. 31,000/-
6.Performance Guarantee	Rs. 76,000/-
7. Security deposit	Rs. 76,000/-
8.Contract Period	One year from date of issue of work order.
9.Tender Fee	Rs.500/- Only
10.Tender Basis and Mode	Two Stage ( Technical Bid & Financial Bid)
11.Mode of Payment to IITG (Tender Fee & EMD)	Demand Draft/ Bank Guarantee in favour of IIT Goa Main Account payable at Goa. (Cheques will not be accepted)
12.Date, Time & Venue of Pre bid meeting	07-09-2020 at 11.00 hrs at C&EMD Office, IIT Goa
13. Closing Date & Time of Receiving of bids.	18-09-2020 at 15.00 hrs
14. Date & Time of opening of Technical Bid	18-09-2020 at 15.30 hrs at C&EMD Office, IIT Goa
15. Date & Time of opening of Financial Bid.	Will be intimated to qualified agencies.
16.Address of tender issue, submission and opening	Tender documents will be available on the site as stated: <a href="https://www.iitgoa.ac.in">https://www.iitgoa.ac.in</a> (Under tender Section) & CPP Portal. Tender submission & opening place: C& EMD OFFICE, IIT GOA
17. Website for full and updated information.	<a href="https://www.iitgoa.ac.in">https://www.iitgoa.ac.in</a> (Under tender Section) & CPP Portal.



### **1.3. ELIGIBILITY CRITERIA**

**1.3.1.** The bidder must be registered in appropriate class of works with Government Organization like CPWD/ PWD/ MES or PSUs or those having experience in similar nature of works awarded by Government / Semi Government Organizations/ Government Funded Autonomous Organization or having experience in execution of similar works.

**1.3.2.** The bidder must have done at least 1 (ONE) similar work of value of 80% of the estimated cost or 2 (TWO) similar works for projects each of value 60% of the estimated cost or 3 (THREE) similar work for projects each of value 40% of the estimated cost with Government/ Semi-government/ PSU/ Government Funded Autonomous Organization during last 7 (seven) years preceding last date of the month of tender submission or having experience in execution of similar works.

**Note:**

(i) The estimated cost is Rs. 15,07,092/- (Rupees Fifteen Lakhs Seven Thousand and Ninety Two Only).

(ii) Similar works shall mean: Building works/ maintenance of Civil & PH works

**1.3.3.** The bidder must be registered with appropriate government authority as a bonafide business entity and must have GST registration certificate and Permanent Account Number of income tax.

**1.3.4.** The registrations and licenses should be valid during the execution phase.

**1.3.5.** Net worth certificate from a Chartered Accountant (CA) to be furnished which should not be less than 15% of the estimated cost.(i.e. Rs. 2,26,064/-).

**1.3.6.** Average annual turnover for the last three years of the bidder as per ITCC or profit & loss statement shall not be less than 50% of the estimated cost (i.e. Rs.7,53,546/-), not having incurred loss in more than two years, during last 5 years ending 31 Mar 2020.

**1.3.7.** The agencies should enclose the Xerox copies of the following;

- a) Performance certificate.
- b) GST Registration.
- c) PAN
- d) EPFO Registration Certificate.
- e) ESIC Registration Certificate.
- f) Registration under CPWD/PWD/MES/PSU & Others.



## **INFORMATION TO BIDDERS**

### **2.1. SCOPE OF WORK**

**2.1.1.** IIT Goa invites tender for Annual Civil Maintenance & repair works of IIT Goa of 1) Administration building, 2) 640 Capacity Hostel, 3) Offices, 4) Academic Blocks, 5) Classrooms, 6) Laboratories 7) Faculty Cabins 8) D-2/C Quarters 9) Rajmudra & Tarangan Building Flats.

**2.1.2.** The contractor shall arrange to provide service on Saturdays, Sundays and other holidays in case of emergency as required by the Engineer in Charge, failing which penal recovery shall be made, decision of Engineer in Charge will be final.

**2.1.3.** The contractor shall provide a supervisor for supervising all the works carried out. The minimum qualification should be Diploma.

**2.1.4.** The complains received by the contractor during normal working hours should be attended to, at the shortest possible time.

**2.1.5.** The contractor shall provide daily report stating the nature of complaints/ work done, to the Engineer in Charge or authorized representative daily in the format.

**2.1.6.** The contractor shall provide & maintain a triplicate book for receiving the job complaint order from Engineer in Charge Daily in the approved format.

**2.1.7.** Each job is identified as following category based on its priority.

A - Normal - 3working days

B - urgent - 1 working day

Penal recovery as under shall be made for delay in execution of work

A - Normal - Rs 100.00/ day

B - urgent - Rs 200.00/ day

Decision of Engineer in charge shall be final for deciding the job as A or B Category before allotting the job.

**2.1.8.** All the replaced items must be stored in the store room as specified by the Engineer in charge.

**2.1.9.** No debris shall be left over during the repair works under each item on any day. An area for 'Debris bins' will be identified on the request of contractor for collection of debris generated on day to day basis. The Debris from debris bin shall be cleared every month. The contractor must maintain adequate number of wheel barrows all the time for shifting the debris to Debris bin.



**2.1.10.** Minimum labour strength and adequate material stored to be maintained on regular basis as under:

- a) Carpenter = 1 No.
- b) Plumber = 1 No.

**2.1.11.** Police Verification Certificate of all workers shall be obtained by Contractor.

## **2.2. GENERAL INSTRUCTIONS**

**2.2.1.** Bidding documents are to be obtained electronically through websites:

<https://www.iitgoa.ac.in> (Under tender Section) & CPP Portal. The tender fee in the prescribed mode must accompany the tender documents issued electronically at the time of submission.

**2.2.2.** This bid document shall be read in conjunction with GCC (General Conditions of Contract) laid down in the CPWD manual and the applicable specifications of CPWD.

**2.2.3.** The bidder shall visit and inspect the site and obtain all information on his own responsibility and at own cost, which may be necessary for the purpose of quoting and submitting the tender. No excuse or ignorance as to site conditions and local information shall be accepted after awarding of the contract. Access to the site will be granted by the Engineer-in-charge on all working days within working hours.

**2.2.4.** The water required for the work shall be arranged by the agency whereas electricity will be provided by IIT Goa.

**2.2.5.** All clarifications about the tender shall be sought by bidder on or before pre-bid meeting. The bidders may make suggestions which shall be considered during the Pre Bid Meeting. No queries shall be entertained after notification of replies to noteworthy queries received till the date of pre-bid meeting.

**2.2.6.** Completion certificate issued by Competent Authority will only be considered as credential. If the Completion certificate issued by Competent Authority does not reflect the type of work, then Final bill / Schedule of Quantity of the qualifying works also to be attached along with the Completion certificates.

**2.2.7.** The bidding document (consisting of the schedule of quantities of various types of items to be executed, the set of terms and conditions of the contract and other documents / drawings, if any), Corrigenda, Clarifications to Pre-bid queries can be downloaded from the website: <https://www.iitgoa.ac.in> (Under tender Section) Corrigenda, if any shall be published only on these website. The institute shall not be responsible for any delay / difficulties / inaccessibility of downloading facility for any reason whatsoever.



**2.2.8.** All costs, charges & expenses that may be incurred in connection with the preparation of the tender shall be borne by contracting and the Institute accepts no liability whatsoever therefore.

**2.2.9.** Rates quoted by the bidders shall be inclusive of GST (Goods and Services Tax - Central, State and Interstate) and all applicable taxes. Income Tax and all other statutory deductions like labour cess etc. will be deducted from the bill as per prevailing rules.

**2.2.10.** Exemption to IITG against any tax/ duty/ fee/ surcharge/ charge/ cost, if any, found applicable or sought later from IITG after award shall be passed on to IITG by the contractor without dispute.

**2.2.11.** IITG reserves the right to reject any or all of the bids without assigning any reason.

**2.2.12.** Bid Validity: Bid shall remain valid for 120 days from the date of submission.

**2.2.13.** Firm Price: Bidder's quoted Rates/Prices for executing the activities under the Contract shall remain firm till the period of one year & shall not attract any escalation under any circumstances whatsoever.

**2.2.14.** If any information furnished by the bidder is found as false / fabricated, then his bid will be rejected and treated as cancelled. Even if such manipulation is detected at any stage after signing of the contract, it would lead to termination of the contract besides forfeiture of Earnest Money Deposit and liabilities towards prosecution. In such cases the bidder will be debarred from participation in future tendering process in IITG for next 05 (Five) years.

**2.2.15.** Earnest Money Deposit (EMD) of requisite amount and that in prescribed mode or proof of payment thereof shall be enclosed with the Technical Bid explained in following section.

**2.2.16.** Refund / Conversion of Earnest Money Deposit: The Earnest Money received shall be refunded to the unsuccessful bidders without any interest upon executing the Contract Agreement by successful bidder. The Earnest Money Deposit (i.e 2% off the tendered value) of successful bidder shall be retained and converted into part of Security Deposit. The remaining 3% of the security deposit will be deducted from each running account bill unless the total amount of security deposit ( i.e Rs 76,000/-)is adjusted.

**2.2.17.** Forfeiture of Earnest Money Deposit: Earnest Money Deposit will be forfeited in any of the following cases:

- The bidder withdraws / modifies his tender during the period of Bid Validity.
- The bidder, in case of tie between lowest bids, refuses to submit revised offer.



- The bidder does not accept the correction of arithmetical errors of his tender.
- The bidder does not submit the performance guarantee within specified time after issue of work order.
- Fails to commence the work after issue of work order within the specified time

### **2.3. SUBMISSION OF TENDER**

**2.3.1.** The sealed tenders shall be received at the C&EMD Office, IIT Goa, Goa College of Engineering Campus, Farmagudi, Ponda Goa-403401 up to 15:00hrs, 18<sup>th</sup> September 2020 or as per Corrigenda otherwise.

**2.3.2.** Tenders received after the due date and time shall not be considered.

**2.3.3.** Tenders shall be submitted in a sealed Master envelope super scribed "Annual Maintenance Contract - Civil with the NIT No. IITGOA/C&EMD/2020/014 dt 23-07-2020, containing three separate sealed covers, each clearly super scribed as "Tender Fee and EMD", "Technical Bid" and "Financial Bid" respectively, in the following manner:

**Envelope-1** (Tender FEE & EMD) will consist of

- Tender Fee for ₹ 500/- (Non-refundable), in the prescribed mode or proof of payment thereof.
- Earnest Money Deposit of requisite amount, in the prescribed mode or proof of payment thereof. Tender without payment of Tender Fee and Earnest Money Deposit would be summarily rejected.

**Envelope-2** (Technical Bid) will consist of:

- Covering letter of the offer signed by firm's authorized signatory.
- Documents establishing the identity and authenticity of the bidder/ bidding firm.
- Self-certified copies of all the documents in support of eligibility of bidder.

**Envelope-3** (Financial Bid) will consist of the complete tender document, each page duly signed and stamped by the bidder as acceptance of the conditions, Declaration by Bidder and Financial Bid all duly filled-in, signed by the bidder or his/her authorized signatory and stamped.

### **2.4. EVALUATION OF BIDS AND AWARD OF WORK**

**2.4.1.** The Technical Bid of bidder will be opened on the specified date and time of opening at the C&EMD Office, IIT GOA, GEC Campus, Farmagudi, Ponda Goa in the presence of willing bidders or their authorized representatives.

**2.4.2.** Date, time and place of opening of Financial Bid will be informed after evaluation of Technical Bid to the Technically Qualified Bidders.





**2.4.3.** Bids shall, first be checked for payment of Tender Fee and Earnest Money Deposit. Only those bids found to have duly paid/ submitted Tender Fee and Earnest Money Deposit shall be considered for evaluation.

**2.4.4.** Evaluation of Technical Bid: The bids received will then be assessed on the eligibility criteria mentioned at para 1.3 of Notice Inviting Tender. Bids found not meeting the eligibility criteria shall be considered non-responsive and shall be rejected summarily.

**2.4.5.** IITG retains the right to revert back to individual bidders with further clarifications /queries on the Technical Bid. The bidder has to respond to the queries within the specified time mentioned in the covering letter.

**2.4.6.** On the date & time specified for opening of Financial Bid or the Revised Financial Bids as the case may be will be opened on specified date and time.

**2.4.7.** EVALUATION OF Financial Bids: The Financial Bid should contain the complete bid document with duly filled in Schedule of Financial Quote. Financial Bids opened as above will be checked for arithmetical errors.

**2.4.8.** The successful bidder shall be issued Letter of Acceptance (LOA) of the bid, and be required to furnish a Performance Guarantee as per General Conditions of Contract (CPWD GCC Manual).

**2.4.9.** Letter of Award (Work Order) shall be issued to the successful bidder only after receipt of the Performance Guarantee, along with Program Schedule and the details of Technical Staff to be deployed for the work.

**2.4.10.** Agreement (Contract) consisting of complete tender document including conditions, bill of quantities, technical proposal and specialized services, drawings, if any, and acceptance thereof together with any correspondence leading thereto, shall be drawn and signed with the awardee after issue of Work Order.

**2.4.11.** Date of start of work shall be reckoned from 15th day from the date of issue of "Work Order".



### 3. UNDERTAKING BY THE BIDDER

#### UNDERTAKING

I / We have read and examined the Tender document including terms & conditions, specifications, bill of quantities, drawings and designs, general rules & directions, General Conditions of Contract, Special Conditions of Contract and all relevant other documents, publications and rules referred to in the Conditions of Contract (CPWD GCC) and all other contents in the tender documents for the work including applicable CPWD Specifications.

I / We, hereby tender for execution of the work specified for the Indian Institute of Technology Goa within the time specified and in accordance in all respects with the specifications, designs, drawings and instructions in writing. We agree to keep the tender open for 120 days from the last date of its submission and not to make any modifications in its terms and conditions. A sum of Rs. \_\_\_\_\_ has been deposited in cash/ demand draft of a scheduled bank as earnest money. If I / we, fail to furnish the prescribed performance guarantee within prescribed period, I / we agree that the said Director, Indian Institute of Technology Goa or his authorized officer shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I / we fail to commence work as specified,

I / we agree that the Director, Indian Institute of Technology Goa shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein. Further, I / We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I / We shall be debarred for participation in the retendering process of the work.

I / We hereby declare that I / We shall treat the tender documents and other records connected with the work as secret / confidential documents and shall not communicate information derived there-from to any person other than a person to whom.

I / We am / are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Seal & Signature of Contractor  
Postal Address  
Dated  
Witness  
Address  
Occupation



<b>Name of work:</b> Annual maintenance and repairs of IIT Goa Administration building, 640 capacity hostel, Offices, Academic blocks, classrooms, laboratories, Faculty Cabins, D-2/C Quarters, Raj Mudra & Tarangan Building Flats.					
<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
	<b>NOTES :</b>				
	a) The contractor shall arrange to provide the service on Saturday, Sunday and other holidays in case of emergency as required by Engineer in charge, failing which penal recovery shall be made, decision of Engineer in charge will be final.				
	b) All breakdown calls /complaints received during normal working hours should be attended to, at the shortest possible time.				
	c) The contractor shall provide daily report stating the nature of complaints / work done to the Engineer in charge or authorized representative daily in the format.				
	d) The contractor shall provide & maintain triplicate book for receiving the job complaint order from Engineer in charge daily in the approved format.				
	e) Each job is identified as following category based on its priority. A - Normal - 3working days B - urgent - 1 working day Penal recovery as under shall be made for delay in execution of work A - Normal - Rs 100.00/ day B - urgent - Rs 200.00/ day decision of Engineer in charge shall be final for deciding the job as A or B Category before allotting the job.				
	f) All the replaced items must be stored in the store room as specified by the Engineer in charge				
	g) No debris shall be left over during the repair works under each item on any day. An area for 'Debris bins' will be identified on the request of contractor for collection of debris generated on day to day basis. The Debris from debris bin shall be cleared every month. The contractor must maintain adequate number of wheel barrows all the time for shifting the debris to Debris bin.				



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<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
	h) Minimum labour strength and adequate material store to be maintained on regular basis as under: a) Carpenter = 1 No. b) Plumber = 1 No.				
	i) Police Verification Certificate of all workers shall be obtained by Contractor.				
	j) Department labour (for other miscellaneous works not specified below)if required shall be provided by the contractor as and when the engineer in charge informs about it.The material for which if required will be provided by IIT Goa.The departmental labour will be paid as per prevailling market rates.				
<b><u>CIVIL WORKS</u></b>					
1	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.				
	a) all kinds of soils	cum	2		
	b)ordinary rock	cum	15		
2	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
	a) all kinds of soils				
	i) pipes,cables.etc exceeding 80mm dia but not exceeding 300mm dia	m	10		



<b>Name of work:</b> Annual maintenance and repairs of IIT Goa Administration building,640 capacity hostel, Offices, Academic blocks, classrooms,laboratories, Faculty Cabins, D-2/C Quarters, Raj Mudra & Tarangan Building Flats.					
<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
3	Excavating trenches of required width for pipes, cables, etc, including excavation for sockets, depth upto 1.5 m, including getting out the excavated materials, returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layers by ramming, watering etc., stacking serviceable material for measurements and disposal of unserviceable material as directed, within a lead of 50 m :				
	a) ordinary rock				
	i) pipes,cables.etc exceeding 80mm dia but not exceeding 300mm dia	m	10		
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :1)1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size)	cum	5		
5	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : i) 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size)	cum	5		
6	Centering and shuttering including strutting, propping etc. and removal of form for :				
	i) Foundations, footings, bases of columns, etc. for mass concrete	sqm	40		
	ii) Columns, Pillars, Piers, Abutments, Posts and Struts	sqm	20		
7	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
	i) Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	250		
8	Brick work with clay flyash F.P.S. (non modular) brick of class designation 7.5 in superstructure above plinth level up to floor five level in :				
	1) cement mortar (1:4) (1 cement : 4 coarse sand)	cum	10		
	Providing and fixing chromium plated brass curtain rod having wall thickness of 1.25mm with two chromium plated brass brackets fixed				



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<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
9	with C.P. brass screws and PVC sleeves etc., wherever necessary complete :				
	i) 20 mm dia	metre	20		
10	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets:				
	1)20mm dia(heavy type)	metre	30		
11	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.				
	i) Fixed to openings / wooden frames with rawl plugs screws etc.	kg	50		
12	Providing and fixing ISI marked, IS : 1341, M.S. heavy weight butt hinges with necessary screws etc. complete :				
	i) 125x90x4.00 mm	nos	10		
	ii) 100x75x3.50 mm	nos	10		
13	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete :				
	i) 125x64x2.50 mm	nos	5		
	ii) 100x60x2.50 mm	nos	5		
14	Providing and fixing bright finished brass butt hinges with necessary screws etc. complete :				
	i) 125x70x4 mm (ordinary type)	nos	5		
	ii) 100x70x4 mm (ordinary type)	nos	5		
15	Providing and fixing bright finished brass tower bolts (barrel type) with necessariescrews etc. complete :				
	1)250x10mm	nos	10		
16	Providing and fixing bright finished brass door latch with necessary screws etc. complete :				
	1)300x16x5mm	nos	5		
17	Providing and fixing bright finished brass handles with screws etc. complete:				
	1)125mm	nos	5		



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<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
18	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	nos	10		
19	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	nos	15		
20	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :				
	1)300x16mm	nos	5		
	2)250x16mm	nos	5		
21	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868 ) transparent or dyed to required colour or shade, with necessary screws etc. complete :				
	1)300x10mm	nos	5		
	2)250x10mm	nos	5		
22	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :				
	1)125mm	nos	5		
23	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.				
	1)twin rubber stopper	nos	5		



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Sr No.	Description of Item	Unit	Quantity	Rate	Amount
24	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	250		
25	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	sqm	5		
26	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	sqm	30		
27	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.				
	i) 1.00 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	sqm	20		
28	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes				
	i) 110 mm diameter	nos	25		





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<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
29	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
	i) Coupler - 110mm	nos	5		
	ii) Single Tee with door - 110mm x 110mm x 110mm	nos	5		
	iii) Single tee without door - 110mm x 110mm x 110mm	nos	5		
	iv) Bend 87.5° - 110mm bend	nos	5		
	v) Shoe (Plain) - 110mm shoe	nos	5		
30	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				
	i) 110mm	nos	15		
31	12 mm cement plaster of mix :				
	i) 1:4 (1 cement: 4 fine sand)	sqm	30		
32	20 mm cement plaster of mix :				
	13.3.1 1:4 (1 cement: 4 fine sand)	sqm	20		
33	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).				
		sqm	20		
34	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :				
	i) Water thinnable cement primer	sqm	200		
35	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
	i) Two or more coats on new work	sqm	400		
36	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
	13.61.1 Two or more coats on new work	sqm	100		



<b>Name of work:</b> Annual maintenance and repairs of IIT Goa Administration building, 640 capacity hostel, Offices, Academic blocks, classrooms, laboratories, Faculty Cabins, D-2/C Quarters, Raj Mudra & Tarangan Building Flats.					
<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
37	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	sqm	200		
38	Distemping with dry distemper of approved brand and manufacture (one or more coats) and of required shade on old work to give an even shade.	sqm	100		
39	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: i) One or more coats on old work	sqm	100		
40	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : i) One or more coats on old work	sqm	50		
41	French spirit polishing : i) One or more coats on old work	sqm	250		
42	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.				
	1) With cement mortar 1:4 (1 cement : 4 fine sand)	sq m	20		
43	Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab, including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.	each	5		
	Cleaning of under ground sump, Over Head R.C.C. Tank ( independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:- (i) Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits.				



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<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
44	(ii) Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water. (iii) Chlorination of RCC internal surface by liquid chlorine. (iv) The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface. (v) Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.	sqm	600		
45	Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.	nos	5		
46	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	nos	5		
47	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	nos	5		
48	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
	1)cement mortar	cum	2		
49	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :				
	1) Of area 3 sq. metres and below	nos	2		
	2) Of area beyond 3 sq. metres	nos	2		
50	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
	1) For thickness of tiles 10 mm to 25 mm	sq m	20		
	2)For thickness of tiles above 25 mm and up to 40 mm	sq m	20		



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<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
51	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	nos	5		
52	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	sq.m	50		
53	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	sq.m	50		
54	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :				
	1) W.C. pan with ISI marked white solid plastic seat and lid	nos	5		
55	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
	1) White Vitreous China Wash basin size 630x450 mm with a single of 15 mm C.P. brass pillar tap.	nos	5		
56	Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete.				
	1) 10 litre capacity - White	nos	10		
57	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	nos	5		



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<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
58	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	nos	5		
59	Providing and fixing toilet paper holder : 1) C.P. brass	nos	10		
60	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	nos	5		
61	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour. 1) 450mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms	nos	5		
62	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
	Internal work - Exposed on wall				
	1) 15 mm nominal outer dia Pipes	mtr	15		
	2) 20 mm nominal outer dia Pipes	mtr	15		
	3) 25 mm nominal outer dia Pipes	mtr	15		
63	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.				



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<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
	External work				
	1)15 mm nominal outer dia Pipes	mtr	15		
	2)20 mm nominal outer dia Pipes	mtr	15		
	3)25 mm nominal outer dia Pipes	mtr	15		
	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
64	1)15 mm nominal bore	nos	2		
	2)20 mm nominal bore	nos	2		
	3)25 mm nominal bore	nos	2		
	Providing and fixing uplasticised PVC connection pipe with brass unions :				
65	i) 30 cm length - 15mm nominal bore	nos	5		
	ii) 30 cm length - 20mm nominal bore	nos	5		
	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :				
66	1) 100 mm diameter	nos	5		
	2)150mm diameter	nos	5		
	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :				
67	1) 15 mm nominal bore	nos	10		
	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.				
68	1) 15 mm nominal bore	nos	5		
	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.				
69	1) 15 mm nominal bore	nos	5		



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<b>Schedule of Quantities</b>					
Sr No.	Description of Item	Unit	Quantity	Rate	Amount
70	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
	1) Anodised aluminium (anodised transparent or dyed to required shade according	kg	300		
71	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
	1) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	kg	150		
72	Providing and fixing 12 mm thick pre-laminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.				
	1) Pre-laminated particle board with decorative lamination on both sides	sq.m	100		
73	21.3 Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				



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<b>Schedule of Quantities</b>					
<b>Sr No.</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate</b>	<b>Amount</b>
	1)With float glass panes of 5 mm thickness (weight not less than 12.50kg/sqm)	sq.m	30		
74	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.				
	i) Upto 5mm depth and 5 mm width	metre	500		
75	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	nos	15		
76	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge				
	1) Anodized (AC 15 ) aluminium	nos	10		





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**Schedule of Quantities**

Sr No.	Description of Item	Unit	Quantity	Rate	Amount
77	Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991, in true horizontal level suspended on interlocking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main- T runners of size 24x38 mm of length 3000 mm, cross - T of size 24x32 mm of length 1200 mm and secondary intermediate cross-T of size 24x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x25x2 mm. Galvanised iron perimeter wall angle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40 mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.				
	1)With 15 mm thick tegular edged light weight calcium silicate false ceiling tiles.	sq.m	50		
78	Providing following skilled labour for 8hours/day				
	1)Fitter ( Grade 1)	days	70		
	2)1st Class Carpenter	days	30		
	3)1st Class Mason	days	15		
	Total Amount				