University College of Engineering and Technology,

Karni Industrial Area, Pugal Road, Bikaner-334004

INVITATION LETTER FOR CIVIL WORKS

Package Code: TEQIP-III/2019/RJ/gceb/112
Package Name: Civil Work

Current Date: 05-Oct-2019
Method:Shopping Civil Works

To,

Dear Sir,

Sub: INVITATION LETTER FOR **Civil Work**

1. You are invited to submit your most competitive quotation for the following works: -

Sr. No	Brief Description of the Works	Approximate value of Works (Rs.)	Expected Completion Period (in Days)
1	Civil work	4997796	30

2. Government of India has received a credit from the International Development Association (IDA) in various currencies equivalent to US$ 36000000000 towards the cost of the Technical Education Quality Improvement Programme [TEQIP]-Phase III Project and intends to apply part of the Proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

3. The _____ Project in _____ state is being implemented by _____, which is an autonomous society registered under the Societies Registration Act.

4. To assist you in the preparation of your quotation, we are enclosing the following:

1) Structural Details;

2) Detailed Bill of Quantities, with estimated rates and prices;

3) Technical Specifications;

4) Instructions to Bidders (in two sections).

5) Draft Contract Agreement format, which will be used for finalizing the agreement for this.

5. You are requested to provide your offer latest by **14:00**hrs.On**19-Oct-2019**

6. Quotations will be opened in the presence of Bidders or their representatives who choose to attend at **14:00** on**19-Oct-2019** in the office of

Director (TEQIP-III), University College of Engineering and Technology,
Karni Industrial Area, Pugal Road, Bikaner-334004.

7. Liquidated Damages will be applied:
   1) Liquidated Damages Per Day Min % : 0.05
   2) Liquidated Damages Max % : 10

8. We look forward to receiving your quotations and thank you for your interest in this project.(Employer)

Name: **University College of Engineering and Technology, Bikaner**

Address: **University College of Engineering and Technology,Karni Industrial Area, Pugal Road, Bikaner-334004,null**

Tel. No: **91-151-2250948**

Fax No.

Instructions to Bidders

SECTION – A

1. Scope of Works

The **University College of Engineering and Technology, Bikaner** (Employer) invites quotations for the construction of “works” as detailed in the table given below-

Sr. No	Brief Description of the Works	Approximate value of Works (Rs.)	Expected Completion Period (in Days)
1	Civil work	4997796	30

The successful bidder will be expected to complete the works by the intended completion date specified above

2.Qualification of the bidder: The bidder shall provide qualification information which shall include:-

(a) Total monetary value of construction works performed for each year of the last 3 years:

(b) Income tax clearance certificate from the concerned IT circle;

(c) Report on his financial standing; and

(d) Details of any litigation, current or during the last 3 years in which the bidder is involved, the Parties concerned and disputed amount in each case.

3.To qualify for award of the contract the bidder:-

(a) Should have satisfactorily completed as a prime contractor at least one similar work of value not less than 80% of estimated contract value in the last three years;

(b) Should possess valid electrical license for executing building electrification works (in the event of the works being sub - contracted, the sub-contractor should have the necessary license);

(c) Should possess required valid license for executing the water supply/sanitary works (in the event of the works being subcontracted, the sub-contractor should have the necessary license);

4. Bid Price

(a) The contract shall be for the whole works as described in the Bill of quantities, drawings and technical specifications. Corrections, if any, shall be made by crossing out, initialling, dating and re writing.

(b) All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price.

(c) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

(d) The rates should be quoted in Indian Rupees only.

5.Submission of Quotations

5.1 The bidder is advised to visit the site of works at his own expense and obtain all information that may be necessary for preparing the quotation.

5.2 Each bidder shall submit only one quotation.

5.3 The quotation submitted by the bidder shall comprise the following:-

(a) Quotation in the format given in Section **B**.

(b) Signed Bill of Quantities; and

(c) Qualification information form given in Section B duly completed.

5.4 The bidder shall seal the quotation in an envelope addressed to the **University College of Engineering and Technology, Karni Industrial Area, Pugal Road, Bikaner-334004** (Purchaser). The envelope will also bear the following identification: - Quotation for **Civil Work(**Name of the Contract).

Do not open before **19-Oct-2019 14:00** (time and date of quotation opening).

5.5 Quotations must be received in the office of the **University College of Engineering and Technology,Karni Industrial Area, Pugal Road, Bikaner-334004** (Employer) not later than the time and date given in the letter of invitation. If the specified date is declared a holiday,quotations shall be received up to the appointed time on the next working day

5.6 Any quotation received by the **University College of Engineering and Technology,Karni Industrial Area, Pugal Road, Bikaner-334004**, (Employer) after the deadline for submission of quotations will be rejected and returned unopened to the bidder.

6.Validity of Quotation

Quotation shall remain valid for a period not less than **55** days after the deadline date specified for submission.

7.Opening of Quotations

Quotations will be opened in the presence of bidders or their representatives who choose to attend on the date and time and at the place specified in the letter of invitation.

8.Information relating to evaluation of quotations and recommendations for the award of contract shall not be disclosed to bidders or any other persons not officially concerned with the process until the award to the successful bidder is announced.

9.Evaluation of Quotations

The Employer will evaluate and compare the quotations determined to be substantially responsive i.e. Which

(a) Meet the qualification criteria specified in clause 3 above;

(b) Are properly signed; and

(c) Conform to the terms and conditions, specifications and drawings without material Deviations.

10.Award of contract

The Employer will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price and who meets the specified qualification criteria.

10.1 Notwithstanding the above, the Employer reserves the right to accept or reject any Quotations and to cancel the bidding process and reject all quotations at any time prior to The Award of contract

10.2 The bidder whose bid is accepted will be notified of the award of contract by the Employer Prior to expiration of the quotation validity period.

11.Performance Security

Within 15 days of receiving the letter of acceptance, the successful bidder shall deliver to the **University College of Engineering and Technology,Karni Industrial Area, Pugal Road, Bikaner-334004** (Employer) the performance security (bank guarantee in favour of the Employer) for an amount equivalent of 5% of the
contract price. The Performance Security shall be valid till the expiry of the period of maintenance of the work, specified in clause 12.

12.Period of Maintenance:

The “Period of Maintenance” for the work is **12 months** from the date of taking over possession or one full monsoon season whichever occurs later. During the period of maintenance, the Contractor will be responsible for rectifying any defects in construction free of cost to the Employer.

13. Purchase of all construction materials including cement and steel as per the specifications (ISI certification marked goods wherever available) shall be the responsibility of the contractor.

SECTION – B

1. **Format for Qualification Information.**
2. **Format for Submission of Quotation.**
3. **Format of Letter of Acceptance.**

QUALIFICATION INFORMATION

1. For Individual Bidders

1.1 **Principal** place of business: _____

Power of attorney of signatory of Quotation.

[Attach copy]

1.2 **Total** value of Civil Engineering _____

Construction work performed in the last _____

Three years (in Rs. Lakhs) _____

1.3 Work performed as prime contractor (in the same name) on works of a similar nature over the last three years.

Project Name, Name of Employer Description of work Contract No. Value of contract (Rs. Lakhs) Date of issue of work order Stipulated period of completion Actual date of completion Remarks explaining reasons for delay and work completed

Existing commitments and on-going works:

Description of Work

(1) Place& State

(2) Contract No. & Date

(3) Value of Contract

(Rs. Lakh)

(4) Stipulated period of completion

(5) Value of works* remaining to be completed

(Rs. Lakhs)

(6) Anticipated date of completion

* Enclose a certificate from Engineer concerned.

1.4 Proposed subcontracts and firms involve

Sections of the works	Value of Sub-contract	Sub-contractor (name & address)	Experience in similar work

1.5 Evidence of access to financial resources to meet the requirements of working capital: cash in hand, lines of credit, etc. List them below and attach copies of support documents.

1.6 Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.

1.7 Information on litigation history in which the Bidder is involved.

Other party(ies)	Employer	Cause of dispute	Amount involved	Remarks showing present status

QUOTATION

*Description of the Works:

To:

Subject: Construction of.....

.....

Reference : Letter No.....dated.....from.....

Sir,

We offer to execute the Works described in your letter referred to above in accordance with the Conditions of Contract enclosed therewith at ..... percentage above / below the estimated rates, i.e., for a total Contract Price of -

Rs. ** _____ [in figures]

Rs. _____ [in words].

This quotation and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any quotation you receive.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery. We hereby confirm that this quotation is valid for 45 days as required in Clause 6 of the Instructions to Bidders.

Yours faithfully,

Authorized Signature:

Date: _____

Name & Title of Signatory: _____

Name of Bidder: _____

Address : _____

* To be filled in by the Employer before issue of the Letter of Invitation.

** To be filled in by the Bidder, together with his particulars and date of submission at the bottom of this Form.

LETTER OF ACCEPTANCE

CUM NOTICE TO PROCEED WITH THE WORK
(LETTERHEAD OF THE EMPLOYER)

Dated: _____

To: [Name and address of the Contractor]
_____
_____
_____
_____
_____

Dear Sir,

This is to notify you that your Quotation dated _____ for execution_____ for the contract price of Rupees _____ [amount in words and figures], is hereby accepted by us.

You are hereby requested to furnish performance security for an amount of Rs. _____ (equivalent to 3% of the contract price) within 15 days of the receipt of the letter. The Performance Security in the form of Bank guarantee or a Bank draft in favour of..... (Employer) shall be valid till the expiry of the period of maintenance i.e. up to _____. Failure to furnish the Performance Security will entail cancellation of the award of contract.

You are also requested to sign the agreement form and proceed with the work not later than _____ under the instructions of the Engineer,

_____ and ensure its completion within the contract period.

With the issuance of this acceptance letter and your furnishing the Performance Security, contract for the above said work stands concluded.

Yours faithfully

Authorized Signature

Name and title of Signatory

Draft Agreement form for Construction through Lump Sum Contract

ARTICLES OF AGREEMENT

1. This deed of agreement is made in the form of agreement on _____ day _____month _____ 20 ___, between the _____ (Employer) or his authorized representative (hereinafter referred to as the first party) and _____ (Name of the Contractor), S/O _____ resident of _____ (hereinafter referred to as the second party), to execute the work of construction of _____ (hereinafter referred to as works) on the following terms and conditions.

2. **Cost of the Contract**

The total cost of the works (hereinafter referred to as the "total cost") is Rs. ____ as reflected in Annexure - 1.

3. **Payments under its contract:**

Payments to the second party for the construction work will be released by the first party in the following manner: -

On Successful Completion: 100% of total cost

(The above payment terms have been drafted for construction of school buildings; modify this suitably for other works)

3.1 The advance shall be repaid with percentage deductions from the interim payments, commencing with the next Interim Payment at the rate of ___@@percent of the amounts of all Interim Payment Certificates until the advance has been repaid, always provided that the advance shall be completely repaid prior to the expiry of the original time for completion

@The Guarantee shall remain effective until the advance payment has been repaid

@@Stipulate appropriately as 30/25/15 % depending on number of payment stages.

3.2 The Employer shall retain (Retention Money) 6% of the amount from each payment due to the Contractor subject to the maximum of 5% of final contract price. Half of the amount retained shall be repaid upon completion of the works, and other half shall be repaid when the Defects Liability Period has passed, and the Project Manager has certified that all Defects notified to the Contractor before the end of this period have been corrected. On completion of the whole works the Contractor may substitute the balance retention money with an "on demand" Bank guarantee

3.3 Payments at each stage will be made by the first party:

(a) On the second party submitting an invoice for an equivalent amount

(b) on certification of the invoice (except for the first instalment) by the engineer nominated by the first party with respect to quality of works in the format in Annexure - 2; and

(c) upon proper and justified utilization of at least 50 % of the previous instalment and 100 % of any prior instalment.

4. Notice by Contractor to Engineer

The second party, on the works reaching each stage of construction, issue a notice to the first party or the Engineer nominated by the first party [who is responsible for supervising the contractor, administering the contract, certifying payments due to the contractor, issuing and valuing variations to the contract, awarding extension of time etc.) to visit the site for certification of stage completion. Within 15 days of the receipt of such notice, the first party or the engineer nominated by it, will ensure issue of stage completion certificate after due verification.

5. Completion time

The works should be completed in _____ (months/weeks/days) from the date of this Agreement. In exceptional circumstances, the time period stated in this clause may be extended in writing by mutual consent of both the parties

6. If any of the compensation events mentioned below would prevent the work being completed by the intended completion date, the first party will decide on the intended completion date being extended by a suitable period:

a) The first party does not give access to the site or a part thereof by the agreed period.

b) The first party orders a delay or does not issue completed drawings, specifications or instructions for execution of the work on time.

c) Ground conditions are substantially more adverse than could reasonably have been assumed before issue of letter of acceptance and from information provided to second party or from visual inspection of the site.

d) Payments due to the second party are delayed without reason.

e) Certification for stage completion of the work is delayed unreasonably.

7. Any wilful delay on the part of the second party in completing the construction within the stipulated period will render him liable to pay liquidated damages. @ 0.05 % per day which will be deducted from payments due to him. The first party may cancel the contract and take recourse to such other action as deemed appropriate once the total amount of liquidated damages exceeds 5 % of the contract amount.

(@**Note: The amount of liquidated damages per day should be determined at not less than 0.05 % of the contract value of the works and indicated here**).

Liquidated Damages Per Day Min % : 0.05%

Liquidated Damages Max % : 10%

8 Duties and responsibilities of the first party

8.1 The first party shall be responsible for providing regular and frequent supervision and guidance to the second party for carrying out the works as per specifications. This will include written guidelines and regular site visit of the authorized personnel of the first party, for checking quality of material and construction to ensure that it is as per the norms.

8.2 The first party shall supply 3 sets of drawings, specifications and guidelines to the second party for the proposed works

8.3 Possession of the site will be handed over to the second party within 10 days of signing of the agreement.

8.4 The Engineer or such other person as may be authorized by the first party shall hold meeting once in a month where the second party or his representative at site will submit the latest information including progress report and difficulties if any, in the execution of the work. The whole team may jointly inspect the site on a particular day to take stock of activities.

8.5 The Engineer shall record his observations/instructions at the time of his site visit in a site register maintained by the second party. The second party will carry out the instructions and promptly rectify any deviations pointed out by the engineer. If the deviations are not

rectified, within the time specified in the Engineer's notice, the first party as well as the engineer nominated by it, may instruct stoppage or suspension of the construction. It shall thereupon be open to the first party or the engineer to have the deviations rectified at the cost of the second party.

9. Duties and responsibilities of the second party

9.1 The second party shall:

a) take up the works and arrange for its completion within the time period stipulated in clause 5;

b) employ suitable skilled persons to carry out the works;

c) regularly supervise and monitor the progress of work;

d) abide by the technical suggestions / direction of supervisory personnel including engineers etc. regarding building construction;

e) be responsible for bringing any discrepancy to the notice of the representative of the first party and seek necessary clarification:

f) ensure that the work is carried out in accordance with specifications, drawings and within the total of the contract amount without any cost escalation;

g) keep the first party informed about the progress of work;

h) correct the notified defects within the length of time specified by the Project Manager;

i) be responsible for all security and watch and ward arrangements at site till handing over of the building to the first party;

j) maintain necessary insurance against loss of materials/cash, etc. or workman disability compensation claims of the personnel deployed on the works as well as third party claims from the start date to the end of defect liability period;

k) pay all duties, taxes and other levies payable by construction agencies as per law under the contract (First party will effect deduction from running bills in respect of such taxes as may be imposed under the law);

l) abide by all labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority;

m) abide by all enactments on environmental protection and rules made there under, regulations, notifications and by-laws of the State or Central Government, or local authorities;

n) be responsible for the safety of all activities on the Site.

10. Variations / Extra Items

The works shall be executed by the second party in accordance with the approved drawings and specifications. No variation in cost is acceptable. However, if the Engineer issues instructions for execution of extra items, the following procedure shall be followed: -

a) The second party shall provide the Engineer with a bid for carrying out the extra items when requested to do so by the Engineer. The Engineer shall assess the bid, which shall be given within seven days of the request before the extra items are ordered

b) If the bid given by the second party is unreasonable, the Engineer may order the extra items and make a change to the Contract Price which shall be based on Engineer's own forecast of the effects of the extra items on the Contractor's costs.

c) The second party shall not be entitled to additional payment for costs, which could have been avoided by giving early warning.

11. Securities

The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee.

12. Termination

12.1 The Employer may terminate the Contract if the other party causes a fundamental breach of the Contract.

12.2 Fundamental breaches of Contract include, but shall not be limited to the following:

- **(a)** the contractor stops work for 28 days and the stoppage has not been authorized by the Engineer;
- **(b)** the Contractor has become bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- **(c)** the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- **(d)** the Contractor does not maintain a security which is required;
- **(e)** the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract; and
- **(f)** the contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid

12.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.

12.4 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonably possible

13. Payment upon Termination

13.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law.

13.2 If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

14. Dispute settlement

If over the works, any dispute arises between the two parties, relating to any aspects of this Agreement, the parties shall first attempt to settle the dispute through mutual and amicable consultation.

In the event of agreement not being reached, the matter will be referred for arbitration by a Sole Arbitrator not below the level of retired Chief Engineer / Superintending Engineer, (not connected in part or whole with this Project in his service) to be appointed by the first party. The Arbitration will be conducted in accordance with the Arbitration and Conciliation Act, 1996. The decision of the Arbitrator shall be final and binding on both the parties.

Annexure- A

BILL OF QUANTITIES

S. No	Description	Qty	Unit	Rate	Amount
1	**Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sum on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including taking out the excavated soil and depositing and refilling of jhiri with watering & ramming and disposal of surplus excavated soil as directed with in a lead of 50 meter. All kinds of soils**	**50**	**Cum**		
2	**Excavating trenches of required width for pipe cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 Mtr. including taking out the excavated soil, and then returning the soil as required in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering etc. and disposal of surplus excavated soil as directed within a lead of 50 Mtr.:** **All kinds of soil**				
	Pipes cables, etc. exceeding 80mm dia but not exceeding 300mm dia.	**300.00**	**Mtr.**		

3	**Providing and laying in position cement concrete including curing, compaction etc. complete in specified grade excluding the cost of centering and shuttering - All work up to plinth level.**				
	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40mm nominal size).	**150.00**	**Cum**		
4	**Providing and laying in position specified grade of cement concrete for RCC structural elements upto floor five level including curing, compaction, finishing with rendering in cement sand mortar 1:3 (1 cement: 3 coarse sand) and making good the joints and cost of plastizers(if required) excluding the cost of centering, shuttering and reinforcement for Beams, suspended floors, roofs, griders having slopes up to 15º, landings, balconies, shelves, chajjas, lintels, bands, plain windows sills, staircases and spiral staircases etc.** **M20 grade Nominal Mix / Design Mix**	**20.00**	**Cum**		
5	**Centering & shuttering with plywood or steel sheets including strutting, propping bracing both ways with steel props and removal of formwork for upto floor five level for**				
	Suspended floors, roofs, landings, staircases, balconies, girders, cantilevers, bands, coping bed plates, anchor blocks, sills, chhajjas, lintel, beam, plinth beam etc.	**200.00**	**Sqm**		
6	**Providing and fabricating reinforcement for R.C.C. work including straightening, cutting, bending,**				

	placing in position and binding (including cost of binding wire) all complete up to floor five level.				
	Thermo-mechanically Treated bars (Conforming of relevent IS code)	**2000.00**	**Kg.**		
7	**Brick work with common burnt clay F.P.S.(Non Modular) bricks of class designation 7.5 in superstructure above plinth level upto floor five level in all shapes and sizes in :**				
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)	**25.00**	**Cum.**		
8	**Half brick masonry with common burnt clay F.P.S.(Non Modular) bricks of class designation 7.5 in Superstructure , above plinth level upto floor five level .**				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	**100.00**	**Sqm.**		
9	**Supplying and fixing machine cut fine dressed Red/Pink sand stone dasa or coping, with full moulding if required laid on cement mortar 1:4 including pointing with admixture of pigment matching with the stone shade.**				
	75 mm thick	**100.00**	**Sqm.**		
10	**Providing and fixing Granite stone slab mirror polished and machine edge cut in walls, pillars, steps, Shelves, Sills Counters, Floors etc. laid on 12mm (Av.) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) jointing with white cement mortar 1:2 (1white cement : 2 marble dust) with pigment to match the shade of the marble slab including grinding, rubbing and polishing complete.**				

	Jhunjhunu / Jalore (Red / Choclate Colour)				
	1501 Cm2 to 3600 Cm2 Tiles	**90.00**	**Sqm.**		
11	**Providing and fixing 1st quality MAT finished ceremic tile size 300x300mm confirming to IS : 13755 and IS : 15622 colour such as white, grey, ivory, fume red brown, light green, light blue and other light shades in floors, steps, pillars etc. laid on a bed of neat cement slurry finished with flush pointing in the white cement mixed with pigment to match the shade of the tile complete (including the cost of cement mortar bed 1:4).**	**300.00**	**Sqm.**		
12	**Providing and fixing external grade board solid core single/ Double leaf flush door shutters IS: 2202(Part-II)1996 marked using Phenol formal dehyderesin in glue both sides with approved stainless steel fittings complete as per annexure 'A' :**				
	35 mm thick .				
	Decorative teak veneer both side	**25.00**	**Sqm**		
13	**Extra for providing external lipping with 2nd class teak wood battens 6 mm minimum depth on all edges of shutters (over all area of door shutter to be measured) Over item**	**25.00**	**Sqm**		
14	**Providing and fixing IS : 3564 marked Aluminium die cast body tubular type universal hydraulic door closer with necessary accessories and screws etc. complete.**	**10.00**	**Each**		

15	**Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10 cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as require including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.**	**150.00**	**Kg.**		
16	**Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :**				
	5.0 mm thick glass panes	**50.00**	**Sqm.**		
17	**Providing and fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture as per direction of Engineer-in-charge of size 595 X 595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanizing @120 grams per sqm) consisting of main 'T' runner suitably spaced at joints to get required length and size of 24X38mm made from 0.33 mm thick (minimum) sheet, 1200mm centre to centre, and cross 'T' of size 24X32mm made out of 0.33mm (Minimum) sheet, 1200mm long spaced between main 'T' at 600mm centre to centre to form a grid of 1200X600mm and secondary cross 'T' of length 600mm and size**				

	24X32mm made out of 0.33 mm thick (Minimum) sheet to be interlocked at middle of the 1200X600mm panel to form grid of size 600X600mm resting on periphery walls/partitions on a perimeter wall angle pre-coated steel of size (24X24X3000mm made of 0.40mm thick (minimum) sheet with the help of rawl plugs at 450mm centre to centre with 25mm long dry wall screws @ 230mm interval				
18	**and laying 15mm thick densified edged calcium silicate ceiling tiles of approved texture in the grid including cutting /making opening for services like diffusers, grills, light fitting, fixtures, smoke detectors etc., wherever required, Main 'T' runners to be suspended from ceiling using 50 mm long M 6 dash fasteners, 6mm G.I. fully threaded rods with galvnised steel L cleat level adjusters of size 80x25x2mm, spaced at 1200mm centre to centre long main 'T' bottom exposed with 24mm of all T-sections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawing and as directed by engineer-in-charge.**				
19	**Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs)having area less than 0.30 Sqm. The calcium silicate ceiling tiles shall have NRC. Value 0.50 (Minimum), light reflection> 85% non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity < 0.043 w/m0KC.**	**330.00**	**Sqm**		

20	**Kota stone slab flooring 25 mm thick over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand)**				
	For area of each slab from 2001 to 5000 Sq.Cm	**350.00**	**Sqm**		
21	**Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete**				
	For area of each slab from 2001 to 5000 Sqcm	**50.00**	**Sqm**		
22	**Plaster on new surface on wall in cement sand mortar 1:3 including racking of joints etc. complete fine finish :**				
	12mm thick	**340.00**	**Sqm**		
23	**Providing and applying white cement based putty over plastered surface to prepare the surface even and smooth complete**	**1860.00**	**Sqm**		
24	**Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade including all scaffolding:**				
	New work (two or more coats) over and including priming coat with cement primer.	**1600.00**	**Sqm**		

25	**Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade including all scaffolding:**				
	New work(Two or more coats) including prepartion of base with primer, putty, lippy etc complete in all respect.	**260.00**	**Sqm**		
26	**Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :**				
	Two or more coats on New Work	**200.00**	**Sqm**		
27	**Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches by sadal/loi. (Only for colour changing only.)**	**1000.00**	**Sqm.**		
28	**Repairs to plaster of thickness 12mm to 20mm in patches of area 2.5 sq. metres 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 within 50 m lead : With cement mortar 1 :4 (1 cement : 4 coarse sand)**	**200.00**	**Sqm**		
29	**Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer-in-charge.**				
	1: 3: 6 or richer mix.	**10.00**	**Cum**		
	1: 4: 8 or leaner mix.	**120.00**	**Cum**		

30	**Dismantling of flushing cistern of any size including stacking of useful materials near the site and disposal of unserviceable material within 50 meter lead.**	**48.00**	**Each**		
31	**Dismantling doors, windows and clearstory windows steel or wood shutter including chowkhats and holdfasts etc. complete and stacking within 50 meters lead:**				
	Of area 3 square meter and below.	**58.00**	**Each**		
32	**Dismantling tile work in floors and roofs laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meter lead:**				
	For thickness of tiles 10mm to 25mm.	**250.00**	**Sqm**		
33	**Dismantling old plaster or skirting, raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 meter lead.**	**200.00**	**Sqm**		

34	**Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of :** **i) Ist course of applying cement slurry @ 4.4 Kg/sum mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.** **ii) IInd course of 20mm cement plaster 1:3 (1 cement: 3 coarse sand) mixed with water. proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface..** **iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 Kg per sqm. of area.** **iv) IVth course of 400 micron thick PVC sheet .(Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 Kg/sqm.)**	**600.00**	**Sqm.**		
35	**Providing and fixing 150 mm wide sheet covering over expansion joints with iron screws as per design to match the colour / shade of wall treatment.**				
	Aluminum fluted strips 2 mm thick	**800.00**	**Rm.**		

36	**Providing and fixing aluminum work for doors ,windows, ventilators and partition with extruded built up standard tubular / appropriate Z sections and other sections of approved make conforming to IS :733 and IS :1285, fixed with rawl plugs and screws or with fixing clips ,or with expansion hold fasteners including necessary filling up of gap. at junctions , at top ,bottom and sides with required PVC/neoprene felt etc. Aluminium section shall be smooth ,rust free, straight ,mitered and jointed mechanically wherever required including cleat angle Aluminium snap beading for glazing /paneling , C.P. brass/ stainless steel screws Al. Tower bolt & Al. handle & Al. Aldrop etc.,all complete as per architectural drawings and the directions of Engineer- in – charge .(Glazing and paneling to be paid for separately).**				
	For fixed portion				
	Polyester Powder coating aluminum (minimum thickness of powder coating 50 micron)	**300.00**	**Kg.**		
37	**For shutters builtup standard tubular sections of openable doors , windows & ventilators including providing & fixing hinges / rollers etc. and making provision for fixing of fittings wherever required (lockes shall be paid for separately).**				
	Polyester Powder coating aluminum (minimum thickness of powder coating 50 micron)	**200.00**	**Kg.**		

38	**Providing and fixing glazing in aluminium door, window ,ventilator shutters and partitions etc. with PVS / 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.)**				
	With float glass panes of 5.0 mm thickness (weight not less than 13.50 kg/sqm)	**10.00**	**Sqm**		
39	**Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS : 6315 marked, for doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S.**				
	With stainless steel cover plate	**10.00**	**Each**		
40	**P & F *Indian type* white glazed vitreous china 1st quality W.C. orissa pan (IS :2556 Mark) with 100 mm vitreous china P or S trap including cutting and making good the wall and floor:**				
	Size 530x410mm.	**48.00**	**Each**		
41	**Labour charges for removing W.C. pan (any type) of all sizes with care including all necessary fittings P or S trap.**	**48.00**	**Each**		
42	**P & F lst quality *WVC* Urinal (IS:2556 mark) with 25mm dia G.I. waste pipe, dome waste couplings, concealed iron brackets or screws etc complete.**				
	WVC Flat Back half stall Urinal size 580x380x350 mm/ Angle back 450x375x350 type liped front..	**36.00**	**Each**		

43	**P & F C.P. brass *Urinal Spreader* for stall urinal of approved make.**				
	For Stall Urinal Normal size	**36.00**	**Each**		
44	**P & F WVC Wash basin (Ist quality IS:2556 Mark) of approved make with C.I. brackets duly painted 1 No. 15 mm C.P. Pillar cock (IS:8934 Mark) & 32 mm C.P. brass waste coupling of approved make 32 mm waste pipe complete including cutting & making good the wall :**				
	Size 510 mm x 400 mm	**36.00**	**Each**		
45	**Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.**				
	Semi rigid pipe				
	32 mm dia	**72.00**	**Each**		
46	**P & F kitchen & Lab Sink of approved make with C.I. brackets duly painted, 40 mm C.P. waste coupling, C.P. Brass chain with rubber plug, 40 mm G.I. waste pipe up to floor level complete including cutting and making good the wall & floor :**				
	White vitreous china laboratry sink600x450x200 mm	**14.00**	**Each**		
47	**Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :**				
	Rectangular shape 453x357 mm	**20.00**	**Each**		
48	**Stainless Steel Grating**				

	100 mm Nominal dia	**50.00**	**Each**		
49	**P & F G.I. Pipes with G.I. fittings (IS:1239 Mark) & M.S. clamps including cutting and making good the walls and floors :-** ***(Internal work) Medium Duty Pipes***				
	Internal work				
	Exposed on wall				
	25mm dia nominal bore	**200.00**	**Mtr.**		
50	**P & F Pilllar Cocks (IS :8934 Mark) of superior quality and approved make:**				
	C.P. Pillar cock, 15 mm dia nominal bore	**20.00**	**Each**		
51	**P & F Bib Cock (IS : 8931 Mark), Superior quality of approved make:**				
	C.P. Brass bib cock,15mm nominal bore.	**80.00**	**Each**		
	P & F *Push Cock* superior quality, of approved make C.P. Brass 15 mm.	**40.00**	**Each**		
52	**P & F *Ball Cock* (IS :1703 Mark) with Rod & P.V.C. Ball complete :**				
	Brass wt.400 gm,15mm.	**8.00**	**Each**		
53	**P *& F Inlet Connection* (Angle Valves) Superior quality, of approved make, for Wash basin, Gyser etc.**				
	C.P. Inlet connection 15 mm Brass (IS:8931 marked).	**100.00**	**Each**		
54	**P & F 15 mm. Dia *Connection Pipe* of approved quality/make :**				

	PVC pipe with C.P. Brass nuts upto length, 450mm	**120.00**	**Each**		
55	**Providing, Laying & Jointing R.C.C. class NP-2 Non-Pressure pipes (IS : 458mark) of approved make with collars, jointed with C.M. 1:2 or having Spigot and socket ends with flexible rubber rings joint including testing of joints etc. complete :**				
	150mm dia Internal	**300.00**	**Mtr.**		
56	**P & F *Sand-cast Iron* (S.C.I.) Pipe (IS : 1729mark) of approved make in wall or in floor with M.S. holder bat clamps in 10 X 10 X 10 Cm. M-15 grade concrete blocks, joints filled with CM 1:4 with spun yarn including cutting holes and making good the wall:**				
	100mm dia	**1000.00**	**Mtr.**		
57	**Add extra for *Lead caulked joints* (IS:782-1978) in sand cast iron pipes/spun-**				
	100mm dia, 0.98 Kg. Pig lead	**500.00**	**Each**		
58	**P & F *S.C.I. Fittings* (IS : 1729 mark) in CM 1:4 with spun yarn.**				
	100 mm w/o door				
	Socket	**25.00**	**Each**		
59	**Cowel**	**16.00**	**Each**		
60	**Tee**	**24.00**	**Each**		
61	**Bend**	**32.00**	**Each**		
62	**100mm with door**				
	Tee	**80.00**	**Each**		

63	**Bend**	**16.00**	**Each**		
64	**P & F Sand-cast Iron 'P' or 'S' Trap (IS:1729 make) of approved make. Sand-cast P trap**	**72.00**	**Each**		
65	**Construction of *manhole* in all type of soil inner size 90 X 60 Cm. 230/300 mm thick masonry in CM 1:6, 10 Cm. thick cement concrete 1:5 10 in foundation, 20 mm thick inside plaster in CM 1:6, finished with floating neat cement, 50mm thick M-15 grade C.C. flooring, making channels, 80mm thick stone slab covering with 40mm thick M-15 grade C.C. flooring, Cement cover with frame of 450mm dia, earthwork etc. complete as per design including disposal of surplus earth within 50 mtr. lead.**				
	Depth up to 0.5 M	**36.00**	**Each**		
66	**Add extra over item for every additional 0.10m depth above 0.5 m depth.**	**2.00**	**Each**		
67	**Construction of Soakage well in all types of soil of approved drawing, top 1.5 Mtr. depth in 345 mm thick brick masonary with CM 1:6, 80mm thick stone slab covering resting on stone lintel of cross section 150 x 300mm (two numbers resting on stone bed plate), jointing of slab in CM 1 : 3, Ralthal, Kharanja 40 mm thick M-15 grade C.C. flooring, out side plaster in CM 1 : 6 upto 450 mm depth, earth work etc complete including disposal of surplus earth within a lead of 50 Mtr. including providing and fixing of PVC Vent pipe 75mm dia upto 1.50 Mtr.**	**3.00**	**Each**		

	height as per direction of Engineer in Charge including making connection etc. 3 Mtr. outer dia in top 1.50 M depth and 90 Cm dia at bottom. Depth of soakage well 10 to 12 Mtr. from ground level. [As per Bikaner Practice].				
68	**Construction of Open Surface Drain with 112mm thick brick masonry in CM 1:4,110mm thick base concrete 1:5:10, 37mm thick M-15 grade C.C. flooring ,12mm 1:4 cement plaster on all exposed faces of walls including top surface excavation & disposal of earth complete as per approved design/drawing:**				
	250mm drain,300mm Av. depth	**200.00**	**Mtr.**		
69	**P & F precast dense cement concrete (Vibro-pressed) drain section Block of different size as per approved drawing and design and strength as per IS code 2185 part I of grade 'D' (5.00mm2) proper quality of additive/admixture like plasticizer etc. added to produce high quality and durable drain section Blocks of 'L' shape 'U' shape etc. as per approved design and drawing complete with fixing and joining in C.M.1:4 in proper grade and level complete in all respect including earth work and disposal of surplus earth within 0.5 Km. lead. (cost of Steel/ welded mesh etc. shall be paid extra).**				
	Upto 80mm thick	**100.00**	**Sqm.**		

70	**Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.(i) Single socketed pipes.**				
	Type B				
	110 mm diameter	**150.00**	**Mtr.**		
71	**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.**				
	Coupler				
	110mm dia	**40.00**	**Each**		
72	**Single Tee without Door**				
	110mm dia	**20.00**	**Each**		
73	**Single Bend w/o Door 87.5°**				
	110mm dia	**10.00**	**Each**		
74	**Single Plain Shoe**				
	110mm dia	**10.00**	**Each**		
	Total				

Gross Total Cost :Rs. .....

We agree to execute the works in accordance with the approved drawings and technical specifications at a total fixed contract price of Rs.....……..(amount in figures) (Rs..... amount in words).

Signature of Contractor

Annexure-B

Format of certificate

Certified that the works up to ---------- level in respect of construction of ---------- at ---------- have been executed in accordance with the approved drawing and technical specifications.

Signature
Name & Designation
(Official address)
Place :
Date :

Office seal