

**CCRH
CENTRAL COUNCIL FOR RESEARCH
IN HOMOEOPATHY
NOIDA**

**TENDER
FOR
CONSTRUCTION
OF
METER ROOM, GUARD ROOM & MISCELLANEOUS
WORKS FOR CCRH AT SECTOR-24, NOIDA**

JAN, 2008

HSCC (INDIA) LTD.

(Consultants & Engineers for Mega Hospitals & Laboratories)

E - 6 (A), Sector - I, NOIDA (U.P.) - 201 301 (INDIA)

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TENDER NO. HSCC/334/PM/Meter Room/PG-I/08

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HSCC (India) Limited.

(Consultants & Engineers for Mega Hospitals & Laboratories)
Plot No.6(A), Block-E, Sector-1, NOIDA - 201301 (U.P.)

No. HSCC/334/PM/Meter Room/PG-I/2008

Dated : 02/01/2008

Notice Inviting Tender

On behalf of "Council for Central Research Institute for Homeopathy, A-1/1, Sector-24, Noida", HSCC (INDIA) Ltd. invites sealed tenders in two bid system from the contractors/firms for the following works:

Sl. No.	Name of Work	Estimated Cost (Rs.)	Bid Security (Rs.)	Cost of document (Rs.)	Period of Completion
1	"Construction of Meter Room, Guard Room & Miscellaneous Works" at Council for Central Research Institute for Homeopathy, A-1/1, Sector-24, Noida."	6.00 lakhs	12000.00 lakhs	2500.00	2 Months

Eligibility Criteria :

- (a) Average annual turnover during the last three years [2004-2005, 2005-2006, 2006-2007] shall be at least Rs. 36.00 lakhs.
- (b) The contractor should possess experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following: -
 - i) Three similar completed works each costing not less than the amount equal to 40% of estimated cost.
 - ii) Two similar completed works each costing not less than the amount equal to 50% of estimated cost.
 - iii) One similar completed work costing not less than the amount equal to 80% of estimated cost.

Applicants may obtain the tender documents on any working day between 10.00 AM and 4.00 PM from 04.01.08 to 14.01.08 on written request from HSCC at the above address against a non refundable fee of Rs. 2500/- payable in cash or in the form of DD/Banker's Cheque in favour of HSCC (INDIA) Ltd. from any Nationalised / Scheduled Bank payable at Noida / Delhi. Last date of tender submission in sealed envelopes by hand or by registered mail to HSCC at the above address on 15.01.2008 by 3.00 PM. Tender shall be opened on 15.01.2008 at HSCC Office, Noida at 3.30 PM. Copy of tender document is available for viewing on our website, www.hsccltd.co.in

General Manager (PG-I)

INSTRUCTION TO BIDDERS

General

1.0 Scope of work :

1.1 HSCC for and on behalf of CCRH (Council for Central Research Institute for Homeopathy - referred to as the Principal Employer) invites bids for the **Construction of Meter Room, Guard Room & Miscellaneous Works** at Council for Central Research Institute for Homeopathy, A-1/1, Sector-24, Noida defined in these documents as the site of works.

1.2 The Principal Employer :

The Council for Central Research Institute for Homeopathy, Noida shall be Principal employer / owner for the subject work.

1.3 The successful bidder will be expected to complete the works within 60 days from the date of Engineer's order to commence the work.

2.0 Cost of Bidding :

2.1 The bidder shall bear all costs associated with the preparation and submission of his bid, and the Employer will in no case be responsible or liable for those costs.

3.0 Site Visit :

The bidder is advised to visit and examine the site of works and its surroundings and obtain for himself on his own responsibility and at his own risk all information that may be necessary for preparing the bid and entering into a contract for the above works. The costs of visiting the Site shall be at the bidder's own expense.

Bidding documents

4.0 Content of bidding documents :

4.1 The set of bidding document comprises of the following as given below and amendment issued in accordance with Clause 6.

- Instruction to Bidders
- Conditions of contract
- Technical Specifications
- Bill of Quantities

5.0 Clarification of bidding documents :

5.1 A prospective bidder requiring any clarification of the bidding documents may notify HSCC in writing or by Fax. HSCC will respond to any request for clarification, which he receives earlier than 3 days prior to the deadline for submission of bids. Copies of such

response/clarification will be forwarded to all purchasers of the bidding documents, including a description of the enquiry but without identifying its source.

6.0 Amendment of bidding Document :

- 6.1 Before the deadline for submission of bids, HSCC may modify the bidding documents by issuing amendment.
- 6.2 Any amendment thus issued shall be part of the bidding documents and shall be communicated in writing or by Fax to all purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each amendment by Fax to HSCC.
- 6.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, HSCC shall extend as in their opinion be necessary, the deadline for submission of bids, in accordance with Sub-Clause 14.2.

Preparation of Bids

7.0 Language of bid :

- 7.1 All documents relating to the bid shall be in the English Language

8.0 Documents comprising the bid :

- 8.1 The bid submitted by the bidder shall comprise the following :

- a) Bid Form
- b) Bid Security
- c) Priced Bill of Quantities

and any other materials required to be completed and submitted by bidders in accordance with these instructions.

9.0 Bid Prices :

- 9.1 Unless stated otherwise in the bidding documents, the Contract shall be for the whole works as described in Sub-Clause 1.1 based on the priced Bill of Quantities submitted by the bidder.
- 9.2 The bidder shall fill in rates and prices for all items of the works described in the bill of quantities. Items for which no rate or price is entered by the bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities.
- 9.3 All duties, taxes and other levies payable by the Contractor under the Contract or for any other cause, shall be included in the rates, prices, and total Bid Price submitted by the bidder.
- 9.4.1 The rates and prices quoted by the bidder shall be firm for the duration of the contract/till completion of work which ever is later and shall not be subject to adjustment on any account.
- 9.4.2 The rates shall be inclusive of supply, transportation, installation, commissioning & no

price escalation/variation shall be allowed. Further no statutory variation in taxes & duties or for any other reasons whatsoever shall be payable & shall be considered as included in the rates quoted by the bidder.

10.0 Currencies of bid and payment :

10.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees.

11.0 Bid Validity :

11.1 Bids shall remain valid for a period of 60 days after the deadline for bid submission specified in Clause 14.

11.2 In exceptional circumstances, the bidders may be required to extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder agreeing to the request will be required to extend the validity of his bid security for the period of the extension, and in compliance with Clause 12 in all respects.

12.0 Bid Security :

12.1 The bidder shall furnish, as part of his bid, a security of Rs. 12,000/-(Rupees Twelve thousand only.)

12.2 The bid security shall be in the form of a pay order/Demand Draft in favour of HSCC (India) Limited, Plot No. E-6(A), Sector -I, NOIDA (U.P) - 201 301 payable at Noida from any nationalised bank/Schedule bank or by bank guarantee for an equal amount from any nationalised bank valid for 30 (thirty) days after bid validity i.e. for minimum 90 days.

12.3 Any bid not accompanied by an acceptable bid security shall be rejected by the Engineer.

12.4 The bid security of unsuccessful bidders will be returned within 15 days of the end of the bid validity period specified in Sub-Clause 11.1.

12.5 The bid security of the successful bidder will be discharged when the bidder has signed the agreement and furnished the required performance security.

12.6 The bid security will be forfeited

- a) If the bidder withdraws his bid during the period of bid validity;
- b) If the bidder does not accept the correction of his bid price, pursuant of Clause 21; or
- c) In the case of a successful bidder, if he fails within the specified time limit to
 - i) sign the Agreement; or
 - ii) Furnish the required performance security.

13.0 Sealing, marking and submission of bid :

13.1 The bid shall be submitted in accordance with the procedure detailed herein. Specified documents shall be enclosed in envelope of appropriate size each of which shall be

sealed.

- i) Envelope No. 1 : Shall contain the bid security as indicated in clause 12 of these instruction to bidders.
- ii) Envelope No. 2 : Shall contain the covering letter and the other bid documents duly signed including the following :
 - a) Power of attorney of person authorised to sign the bid.
 - b) Original bid documents Vol I & II & Tender drawings duly signed,
- iii) Envelope No. 3 : Shall contain the Bill of Quantities (Vol III) and price bid duly filled in and signed.

The contractor must fill up prices in the Bill of Quantities both in words and figures. Please note that the price should not be indicated in any of the documents enclosed in envelope 1 and 2. No conditions shall be put in the price bid. If so, the same shall be rejected.

- 13.2 The bidder shall seal the bid.
- 13.3 All the three envelopes shall be sealed and enclosed in an envelope and addressed to the General Manager (PG-I), HSCC (India) Limited Plot No. E-6(A), Sector - I, NOIDA (U.P)- 201 301.
- 13.4 All the above envelope shall bear the following identification:
Name of work: : Construction of Meter Room, Guard Room & Miscellaneous Works at Council for Central Research Institute for Homeopathy, A-1/1, Sector-24, Noida.
- 13.5 All the envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened, if required.
- 13.6 All recipients for the purpose of submitting a bid shall treat the contents of the documents as private and confidential.

14.0 Deadline for submission of bids :

- 14.1 Bids must be received by the Engineer, HSCC (India) Ltd., at the address specified above not later than **15:00 hrs** of the designated date.
- 14.2 HSCC (India) Ltd may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 6 in which case all rights and obligations of HSCC (India) Ltd and the bidders previously subject to the original deadline will then be subject to the new deadline.

15.0 Late bids :

- 15.1 Any bid received by HSCC (India) Ltd after the prescribed deadline for submission will be returned unopened to the bidder.

16.0 Modification and withdrawal of bids :

- 16.1 The bidder may modify or withdraw his bid by giving notice in writing before the deadline

prescribed in Clause - 14.

- 16.2 The bidder's modification or withdrawal notice shall be prepared, sealed marked, and delivered in accordance with the outer and inner envelopes additionally marked "MODIFICATION" or "WITHDRAWAL" as appropriate.
- 16.3 No bid may be modified after the deadline for submission of bids.
- 16.4 Withdrawal of bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in the form of bid may result in the forfeiture of the bid security pursuant to Clause 12.

Tender Opening and Evaluation

17.0 Bid Opening :

- 17.1 Bid shall be opened in the office of HSCC (India) Ltd at E-6(A), Sector-I, NOIDA (U.P) - 201 301 /half an hour after the prescribed time for tender submission in presence of the bidder's representatives who may wish to be present.

Envelope No. 1 : Shall be opened first. If the bid security is not found as prescribed the bid shall be summarily rejected.

Envelope No. 2 : Shall then be opened. Bids of parties who do not accept the conditions laid above in the bid documents are also liable to be rejected.

- 17.2 The Tender Scrutiny Committee will examine the original bids to determine whether they are complete, whether the requisite bid securities have been furnished, whether the bids have been properly signed and whether the bids are generally in order.
- 17.3 Telephonic/Fax offer will be treated as defective, invalid and rejected. Only detailed complete bids received prior to the closing time and date of the bids will be taken as valid.
- 17.4 The bidder's names, general technical details, the presence of the requisite bid security and such other details as HSCC (India) Ltd , at their discretion may consider appropriate will be announced at the bid opening.
Envelope No. 3: Contain the sealed price bid of parties whose bid is found to be generally in order and substantially responsive shall be opened either at the bid opening or at a subsequent date to be intimated in advance to such eligible bidders.
- 17.5 Only summary of prices quoted by the bidders will be read out.
- 17.6 The bid of any bidder who has not complied with any of the instructions contained herein may not be considered.

18.0 Process to be confidential :

- 18.1 Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or

any other persons not officially concerned with such process until the award to the successful bidder has been announced. Any effort by a bidder to influence HSCC (India) Ltd in processing of bids or award decisions may result in the rejection of his bid.

19.0 Clarification of bids :

19.1 To assist in the examination, evaluation, and comparison of bids, HSCC may at their discretion, ask any bidder for clarification of his bid including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by HSCC in the evaluation of the bids in accordance with Clause 21.

20.0 Examination of bids and determination of responsiveness :

20.1 Prior to the detailed evaluation of bids, HSCC will determine whether each bid (a) meets the eligibility criteria (b) has been properly signed; (c) is accompanied by the required securities; (d) is substantially responsive to the requirement of the bidding documents; and (e) provides any clarification and/or substantiation that HSCC may require.

20.2 A substantially responsive bid is one, which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which effects in any substantial way the scope, quality, or performance way, inconsistent with the bidding documents, the Employer's right or the bidder's obligations under the affect contract or (b) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

20.3 If a bid is not substantially responsive, it may be rejected by HSCC , and may not subsequently be made responsive by correction or withdrawal of non conforming deviation or reservation.

21.0 Correction of errors :

21.1 Bids determined to be substantially responsive will be checked by HSCC for any arithmetic error. Errors will be corrected by HSCC as follows :

- a) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern ; and
- b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.

21.2 The amount stated in Form of Bid will be adjusted by HSCC in accordance with the above procedure for the correction of errors and, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of bid, his bid will be

rejected, and the bid security may be forfeited in accordance with sub-clause 12.6(b).

22.0 Currency for bid evaluation :

22.1 Bids shall be evaluated as quoted in Indian Rupees in accordance with sub-clause 10.1.

23.0 Evaluation and comparison of bids :

23.1 The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with clause 20.

23.2 In evaluating the bids, the Employer will determine for each bid the Evaluated Bid Price by adjusting the Bid Price as follow :

- a) making any correction for errors pursuant to clause 21.
- b) excluding Provisional Sums and the provision, if any, for Contingencies in the Summary of Bill of Quantities.

23.3 HSCC reserves the right to accept or reject any variation, deviation, or alternative offer, and other factors which are in excess of the requirements of the bidding documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in bid evaluation.

Award of Contract

24.0 Award Criteria :

24.1 Subject to Clause 25, HSCC will award the Contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the lowest evaluated bid price, provided that such bidder has been determined to be qualified in accordance with the provisions of clause and he is found capable of supplying and installing the required laboratory furniture etc. as per the technical specification issued to the bidder.

25.0 Employers right to accept any bid and to reject any or all bids :

25.1 Notwithstanding clause 24, HSCC reserves the right to accept or reject any bid, and to cancel the bidding process and reject all bids, at any time prior to the award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder/ bidders of the ground for the HSCC action.

26.0 Notification of award :

26.1 Prior to expiration of the original period of bid validity prescribed by the Engineer, he will notify the successful bidder by Fax confirmed by registered letter/courier that his bid has been accepted. This letter (hereinafter and in the conditions of Contract called the Letter of Acceptance) shall indicate the sum which HSCC will pay to the Contractor in

consideration of the execution, completion and maintenance of the works by the Contractor as prescribed by the Contract (hereinafter called the "Contract Price").

- 26.2 The notification of award will constitute the formation of the contract, subject only to the furnishing of a performance security in accordance with the provision of Clause 27.
- 26.3 Upon furnishing the performance security by the successful bidder, the Engineer will promptly notify the other bidders that their bids have been unsuccessful.

27.0 Performance Security :

- 27.1 Within 15 days of receipt of the notification of award from the Engineer, the successful bidder shall furnish to the Engineer a performance security in the form of a DD or bank guarantee as per enclosed format of an amount equivalent to 5% of the contract price. The validity of the performance security shall be upto the end of the defect liability period which shall be 6 months from the date of completion.
- 27.2 Failure of the successful bidder to comply with the requirements of sub-clause 27.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the bid security.

General Conditions of Contract

1.0 Definitions :

1.1 Terms which are defined in the Contract Data are not also defined in the Conditions of contract but keep their defined meanings. Capital initials are used to identify defined terms.

Acceptance is the date when the contract came into existence upon receipt by the contractor of the Letter of Acceptance issued by the Engineer.

The **Activity Schedule** is a schedule of the activities comprising the Supplying, installation, testing and commissioning of the works.

The **Completion Date** is the date when the Engineer notified that the works can be used by the Engineer.

The **Principal employer/Owner** is Council for Central Research Institute for Homeopathy, A-1/1, Sector-24, Noida. HSCC (India) Ltd as consultant to employer shall represent them for tendering, award of work & execution of work.

The **Consultant** is M/s HSCC (I) Ltd. (HSCC), E-6A, sector 1 Noida.

The **Contract** is the contract between the consultant on behalf of the Employer of the one part and the Contractor of the other.

The **Contract Data** defines the documents and other information which comprise the Contract.

The **Contractor** is a person or corporate body whose bid to carry out the works has been accepted by the Employer.

The **Contractor's Bid** is the completed bidding documents submitted by the contractor to the Engineer.

The **Contract Price** is the price stated in the Letter for Acceptance and thereafter as adjusted in accordance with the provisions of the contract.

Days are calendar days: **Months** are calendar months.

A **Defect** is any part of the works not completed in accordance with the contract.

The **Engineer** is the person appointed by consultant who is responsible for supervising the Contractor administering the Contract, certifying payments due to the Contractor, issuing and valuing variations to the Contract, awarding extensions of time etc.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the works.

The **Initial Contract Price** is the Contract Price at the date of the Employer's written acceptance of the bid.

The **Intended Completion Date** is the date on which it is intended that the contractor shall complete the works. The intended completion date is specified in the contract data. The intended completion date may be revised only by the Engineer by issuing an extension of time.

Plant is any integral part of the works which is to have a mechanical, electrical, electronic or chemical function.

The **Site** is the area defined as such in the contract data.

Site Investigation Reports are those which were included in the bid documents and are factual and interpretative reports about the ground and ground water conditions at the site.

The **Start Date** is given in the contract data. It is the date when the contractor can commence work on the contract. It does not necessarily coincide with any of the site Possession Dates.

A **Sub-contractor** is person or corporate body who has a contract with the contractor to carry out a part of the work in the contract, which includes work on the site.

Temporary works are works designed, constructed, installed and removed by the contractor which are needed for construction or installation of the works.

A **Variation** is an instruction given by the Engineer which varies the works.

The **Works** are what the contract requires the contractor to construct, install and hand over to the Employer.

2.0 Interpretation :

2.1 In interpreting these conditions of contract, singular also means plural, male also means female and vice versa. Headings and cross-reference between clauses have no significance. Words have their normal meaning under the language of the contract unless specifically defined.

2.2 If sectional completion is specified in the contract data, references in the conditions of contract to the works, the completion date, and the Intended Completion Date apply to any Section of the Works. (other than references to the completion date and intended completion date for the whole of the works)

3.0 Language and law :

3.1 The language of the contract and the law-governing contract are stated in the contract data.

4.0 Engineer's decisions :

4.1 The Engineer is to decide contractual matters between the Employer and the Contractor

fairly and impartially.

5.0 Delegation :

5.1 The Engineer may delegate any of his duties and responsibilities to other people after notifying the contractor and may cancel any delegation after notifying the contractor.

6.0 Communication :

6.1 Communications between parties which are referred to in the conditions are effective only when in writing.

7.0 Sub-Contracting :

7.1 The contractor shall not subcontract the whole works. Except where otherwise provided by the contract, the contractor shall not subcontract any part of the works without the prior consent of the engineer.

8.0 Other Contractors :

8.1 The contractor is to cooperate and share the site with other contractors, Public authorities, utilities, and the Employer as per requirements of the Employer. He is also to provide facilities and services for them as per Engineer's directives.

9.0 Personnel :

9.1 The contractor is to employ the key personnel to carry out the functions stated in the Scope of works or other personnel approved by the Engineer. The person so appointed shall be duly authorised to receive instructions from the Engineer and carry out the instructions issued.

10.0 If the Engineer asks the contractor to remove a person who is a member of his staff or his work force and states his reasons the contractor is to ensure that the person leaves the site immediately and has no further connection with the work in the contract.

11.0 Contractor's risks :

11.1 All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the contract are the responsibility of the contractor.

12. ESCALATION:

Escalation is not payable.

13.0 Indemnities :

13.1 The contractor indemnifies the Employer against claims for damage caused by the movement of his equipment or temporary works outside the site.

14.0 Site Investigation report : Deleted

15.0 Queries about the Contract data :

The Engineer is to give instructions clarifying queries about the Contract data.

16.0 Contractor to construct the works :

16.1 The contractor is to construct the works in accordance with the specification and drawings.

17.0 The works to be completed by the intended completion date :

17.1 The contractor may begin the works on the start date and is to carry out the works in accordance with the program submitted by him, as updated with the approval of the Engineer, and complete them by the intended completion date.

18.0 Approval of the contractor's temporary works :

18.1 The contractor is to submit drawings and specifications showing his proposed temporary works to the Engineer, who shall to approve them if they comply with the contract data.

18.2 The contractor is responsible for design of temporary works.

18.3 The Engineer's approval does not alter the contractor's responsibility for his design of the temporary works.

18.4 The contractor is to obtain approval of third parties to his design of the temporary works where required.

19.0 Safety :

19.1 The contractor is responsible for the safety of all activities on the site.

20.0 Special Applications

Deleted.

21.0 Possession of the site :

21.1 The Employer is to give possession of all parts of the site to the contractor. Possession of site may be given in parts and the contractor is required to take such delay, if any, in his account.

22.0 Access to the site :

22.1 The contractor is to allow the Engineer and any person authorised by the Engineer access to the site and to any place where work in connection with the contract is being carried out or is intended to be carried out.

23.0 Instructions :

23.1 The contractor shall carry out all instructions of the Engineer, which comply with the law of the country in which the site is located.

24.0 Procedure for disputes :

24.1 If any dispute or difference of any kind what so ever shall arise between the Employer and the contractor or the Engineer and the contractor in connection with or arising out of the contract, or the execution of the works, whether during the progress of the works or after their completion and whether before or after the termination, abandonment or

breach of the contract, it shall in the first place, be referred to and settled by the engineer who shall, within a period of ninety days after being requested by either party to do so, give written notice of his decision to the Employer and the contractor subject to arbitration, as hereinafter provided, such decision in respect of every matter so referred shall be final and binding upon by the Employer and by the contractor and shall forthwith be given effect to by the Employer and by the contractor, who shall proceed with the execution of the works with all due diligence whether he or the Employer requires arbitration, as hereinafter provided, or not. If the engineer has given written notice of his decision to the Employer or the contractor within a period of ninety days from receipt of such notice, the said decision shall remain final and binding upon the Employer and the contractor. If the engineer shall fail to give notice of his decision, as aforesaid within a period of ninety days after being requested as aforesaid, or if either the Employer or the contractor be dissatisfied with any such decision, then and in any such case either the employer or the contractor may within ninety days after receiving notice of such decision within ninety days after the expiration of the first named period of ninety days as the case may be require that the matter or matters in dispute be referred to arbitration as hereinafter provided all disputes or differences in respect of which the decision if any of the Engineer has not become final and binding as aforesaid shall be finally settled under the Indian Arbitration Act 1996 or any statutory modification or enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause. Such arbitration shall be settled by two arbitrators, one to be appointed by each party to the dispute and the arbitrators shall before taking upon themselves the burden of reference appoint an umpire. If, the arbitrators can not agree on the appointment of the umpire, the umpire shall be appointed by Chairman-cum-Managing Director, HSCC. The arbitration shall take place at Noida unless both parties agree otherwise neither party shall be limited in the proceedings. Before such arbitrator/s to the evidence or arguments put before the Engineer for the purpose of obtaining his said decision no decision given by the Engineer in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator/s on any matter whatsoever relevant the dispute or difference referred to the arbitrator/s as aforesaid. The reference to arbitration may proceed notwithstanding that the works shall not then be or be alleged to be complete provided always that the obligations of the Employer the Engineer and the contractor shall not be altered by reason of the arbitration being conducted during the progress of the works.

Time Control

25.0 Program :

Deleted.

26.0 Extension of the intended completion date :

26.1 Extension of completion time shall be considered & may be granted by the Engineer based on merit of the case which is required to be submitted by the Contractor along with full justifications & supporting documents for the reasons of delay not attributable to the Contractor. However the rates shall be firm & binding during the extended period of completion. No extra payment/compensation for extended stay shall be permissible.

27.0 Acceleration : Deleted

28.0 Delays ordered by the Engineer :

28.1 The Engineer may instruct the Contractor to delay the start of progress or any activity within the works. However no compensation on any account for such delay shall be payable to the Contractor.

29.0 Management Meetings :

Deleted.

30.0 Early warning : Deleted

31.0 Identifying defects :

31.1 The Engineer is to check the Contractor's work and to notify the Contractor of any defects, which he finds. Such checking does not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover at test any work, which he considers may have a Defect.

32.2 Tests :

32.1 If the Engineer instructs the Contractor to carry out test not specified in the specification to check whether any work has a Defect and the test shows the it does, the Contractor is to pay for the test and its samples. If there is no defect the test is compensation event.

33.0 Correction of defects :

33.1 The Engineer is to give notice to the Contractor of Defects of which he is aware before the end of the Defects Notice Period, which begins at Completion.

33.2 Every time notice of a Defect is given, a Defect Correction Period for the notified defect beings. The Contractor is to correct the notified defect within the Defects Correction Period. The length of the Defects Correction Period is stated in the Contract Data.

33.3 The Contractor is to correct defects which he notice himself before the end of the Defects Notice Period.

33.4 The Engineer is to certify that all Defects have best corrected when all known Defects

have been corrected. If the Engineer considers that correction of a Defect is not essential he can request the Contractor to submit a quotation for the corresponding reduction to the Contract Price or an earlier Intended Completion Date or both. If the Engineer accepts the quotation the corresponding change in the contract Data is Variation.

34.0 Uncorrected defects after completion date :

34.1 After Completion the Engineer may arrange for a third party to correct a Defect if the contractor has not corrected it within the Defects Correction Period.

34.2 The Engineer is to give the Contractor at least 28 days notice of his intention to use a third party to correct a Defect. If the Contractor does not correct the Defects himself within this notice period, the Engineer may have the Defect corrected by the third party. The cost of the correction will be deducted from the Contract Price.

35.0 Bill of Quantities :

35.1 The Bill of Quantities is to contain items for the construction of Meter Room, Guard Room & Miscellaneous works to be done by the Contractor.

35.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

36.0 Changes in the quantities :

36.1 The quoted rates for all the items shall be firm, fixed and binding on the contractor irrespective of any variation of quantities stated in the contract.

37.0 Variations:-

All variations are to be included in updated programs produced by the Contractor.

38.0 Payments for variations :

38.1 The Contractor is to forecast the cost effect of a proposed variation on the Contract Price and provide the Engineer with a quotation for carrying out the variation when requested to do so by the Engineer before the variation is ordered by him.

38.2 If the Contractor's quotation is unreasonable, the Engineer orders the variation and make a change to the contractor's price which is based on his own, forecast of the effects of the variation on the Contractor's costs and which shall be binding on the contractor.

39.0 Cash flow forecasts :

39.1 The Contractor shall provide cash flow forecast at the start of work to the engineer.

40.0 Payment certificates :

40.1 The Contractor shall submit to the Engineer weekly statements of the estimated value of the work completed less the cumulative amount certified previously.

40.2 The Engineer shall check the Contractor's weekly statement and certify the amount to be

paid to the Contractor.

- 40.3 The value of work completed is determined by the Engineer.
- 40.4 The value of work completed comprises the value of the quantities of the items in the Bill of Quantities completed and brought to the site of work.
- 40.5 The value to work completed includes the valuation of Variation and deductions for retention.
- 40.6 The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

41.0 Payments :

- a) The Contractor shall be paid on the certification of the Engineer, the amount due to him.
- b) Retention Money at the rate of 10%(ten percent) shall be deducted from each interim certificate subject to a maximum of 5%(five percent) of the contract price.
- c) Payment upon each of the Engineer's certificates shall be made by the HSCC (India) Ltd. acting for and on behalf of Employer within 30 days after such certificate has been issued by the Engineer.

However, 75% of the estimated amount as determined by the Engineer of the payment due against the monthly running bill shall be paid within 10 (Ten) working days after submission of the bill by the contractor in the approved format and complete in all respects.

- d) The Engineer may at any time make any corrections or modifications to any certificate, which shall have been issued by him and shall have power to withhold any certificate if the Works or any part thereof are not being carried out to his satisfaction.
- e) The responsibility for making the payments or meeting other obligations to the Contractor in respect of all Works as certified by the Engineer shall be that of the Employer and not of the Engineer.
- f) After completion of work and prior to final payment, the contractor shall furnish to the engineer, a release of claim against the Employer arising out of contract, other than claims specifically identified, evaluated and excepted from the operation of the release by the contractor.

42.0 Taxation

The contractor and his staff shall pay all taxes, duties, levies, etc. of the Government provisions of the Income-Tax Act or as per the advice of the Income Tax Authority. Deduction of Income-Tax, VAT / other taxes shall be made from each certificate of

payment as per the relevant provisions of the Income Tax Act or as per the advice of the Income Tax authority/ other competent authority.

43.0 Subsequent Legislation Deleted

44.0 Retention :

44.1 The Employer is to retain from each payment due to the contractor the proportion stated in the Contract Data until completion of the whole of the works.

44.2 On completion of the whole of the works half the total amount retained is repaid to the contractor and half when the Defects Notice Period has passed and the Engineer has certified that all Defects notified by him to the Contractor before the end of this period have been corrected.

45.0 Liquidated damages :

45.1 The Contractor is to pay liquidated damages to the Employer at the rate per calendar day stated in the Contract Data from each day that the completion date is later than the Intended Completion date. The Employer may deduct liquidated damaged from payments due to the contractor. Payment of liquidated damages does not affect the Contractor's liabilities.

45.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer is to correct any overpayment of liquidated damages by the contractor by adjusting the next payment certificate. The Contractor is to be paid interest on the overpayment, calculated from the date of payment to the date of repayment.

46.0 Advance payment :

46.1 Advance is not payable.

47.0 Securities :

47.1 The performance securities are to be provided to the Employer by the start date and are to be issued in a form and by a bank or bondsman acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable.

47.2 If there is no reason to call the performance security, the performance security is to be returned by the Employer within 14 days of the last defects correction period.

47.3 The Employer is to notify the contractor of any claim made against the institution issuing the security.

47.4 The Employer may claim against the surety if any of the following occurs for 42 days or more ;

a) the contractor is in breach of the Contract and the Employer has notified him that he is;

and

- b) the Contractor has not paid an amount due to the Employer.

48.0 Dayworks :

- 48.1 The days works rates in the Contractor's bid are to be used for small additional amounts of work and only when the Engineer has given written instructions in advance for additional work to be paid for in that way.
- 48.2 All work to be paid for as Day works is to be recorded by the Contractor on forms approved by the Engineer. Each completed forms to be verified and signed by the Engineer within two calendar days of the work being done.
- 48.3 The contractor is paid for day works only when he has obtained signed day works forms.

49.0 Cost of repairs :

- 49.1 Loss or damage to the works or materials to be incorporated in the works between the start date and the end of the Defects Correction is to be amended by the contractor at the contractor's cost if the loss of damage arises from the contractor's acts of omissions.

Finishing the Contract

50.0 Completion :

- 50.1 The Engineer is to issue a certificate certifying completion to the contractor and the Employer when he decides that the work is completed.

51.0 Taking over :

- 51.1 The Employer takes over the site and the works within a month of the Engineer issuing a certificate of completion.

52.0 Final account :

- 52.1 The contractor is to supply to the Engineer a detailed account of the total amount which he considers is payable to him under the contract before the end of the defects notice period. The Engineer is to certify any final payment which is due to the contractor within 30 days of receiving the contractor's account if it is correct and complete. If it is not, the Engineer is to issue a schedule which states the scope of the corrections or additions which are necessary. If the final account is still unsatisfactory after it has been resubmitted, the Engineer is to decide on the amount payable to the contractor.

53.0 DELETED

54.0 Termination :

- 54.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract which substantially deprives him of the principal benefits of the contract.
- 54.2 Fundamental breaches of contract include, but are not limited to :
- a) the contractor stops work for 28 days when no stoppage of work is shown on the current program and the stoppage has not been authorised by the Engineer.
 - b) the Engineer instructs the Contractor to delay the progress of the works and the instruction is not withdrawn within 28 days;
 - c) the employer or the contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
 - d) a payment certified by the Engineer is not paid by the Employer to the Contractor within 84 days of the date of the Engineer 's certificate;
 - e) 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; and
 - f) the contractor does not provide a security which is required.
- 54.3 When either party to the Contract gives notice of a breach of contract to the Engineer, the Engineer is to decide whether the breach is fundamental or not.
- 54.4 Notwithstanding the above, the Employer may terminate the Contract at his convenience.
- 54.5 If the contract is terminated the contractor is to stop work immediately, make the site safe and secure and leave the site as soon as reasonably possible.
- 55.0 Payment upon termination :**
- 55.1 If the contract is terminated because of a fundamental breach of contract by the contractor, the Engineer is to issue a certificate for the value of the work done and materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage of the value of the work not completed indicated in the contract data. Liquidated damages to not apply and the Employer has right to damages in respect of any delay incurred arising from the breach. If the total amount due to the Employer exceeds any payment due to the contractor the difference shall be a debt payable to the Employer.
- 55.2 If the contract is terminated at the Employer's convenience because of a fundamental breach of contract by the Employer, the Engineer is to issue a certificate for the value of the work done, materials ordered, 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 certificate.

56.0 Property :

56.1 All materials on the site, plant, and equipment owned by the contractor, temporary works and works are deemed to be the property of Employer and are at his disposal if the contract is terminated because of a fundamental breach of contract by the Contractor.

57.0 Frustration :

57.1 If the contract is frustrated by the out break of war or by any other event entirely outside the control of either the employer or the Contractor the Engineer is to certify that the Contract has been frustrated. The contractor is to make the site safe and stop work as quickly as possible after receiving this certificate and is to be paid for all work carried out before receiving it and for any work carried out afterwards to which he was committed.

The following documents are also part of the contract :

- * The Bid and letter of Acceptance
- * The conditions of Contract
- * The Technical Specifications
- * The Drawings
- * The Priced Bill of Quantities

The Contractor is to submit the program for the works within 7 days of being notified of the acceptance of his bid.

The law which applies to the Contract is the law of the Union of India, that of Delhi High Court.

Arbitration procedure to be as per Arbitration and Reconciliation Act 1996. Court Jurisdiction New Delhi

Place where arbitration will take place: Noida

SPECIAL CONDITIONS OF CONTRACT

1. The quoted rates are deemed to include for all leads & lifts etc, and no claim on this account shall be entertained. When required by the engineer the work shall be carried out beyond office hours and at night and in such a case the contractor shall at his own cost make suitable arrangement for providing lighting etc. The quoted rates are deemed to include for all expenditures associated with overtime/night work.
2. The dimension given in the drawings are to be treated as approximate and indicative only. The contractor has to carry out the work as per actual site measurements.
3. Water & electricity shall be arranged by the Contractor at their cost or shall be supplied by Principal Employer if available, subject to recovery.
4. The BOQ, specification and other contract documents are jointly descriptive and supplementary to each other of the work involved. The items have been briefly described in the BOQ. However, the work shall be carried out as per detailed specifications and standards norms and practices followed for such type of works. The scope includes matters not specifically mentioned but required for proper completion of the work and no claim whatsoever shall be entertained on this account.
5. The contractor shall submit samples of the materials he proposes to use in the works for approval of the Engineer. Only approved material shall be used in the works. The approved samples shall be signed by the contractor and the engineer and retained in the office of the engineer for comparison.
6. The quantities indicated in the BOQ are tentative and may vary as per approved shop drawing. The contractor shall calculate the quantities of each item in accordance with approved shop drawing and get Engineer's approval for the same. The quantities of each item shall be as per this approved list. Payment shall be made as per quoted rates in BOQ.

FORM OF AGREEMENT

(On a stamp paper of appropriate value)

AGREEMENT

This Agreement made the _____ day of _____ 20_____ between Council for Central Research Institute for Homeopathy, Noida (hereinafter called "The Employer") represented by M/s HSCC (India) Ltd. who enters into this Agreement of the one part and M/s
..... (hereinafter called "The Contractor") of the other part.

Whereas The Employer is desirous that certain Works should be executed by the Contractor, viz _____ ("the works") and has accepted a Bid amounting to Rs. _____ by the Contractor for the execution and completion of the Works and the remedying of any defects therein.

Now this Agreement witnesseth as follows :

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz :
 - (a) The Letter of Award
 - (b) The said Bid;
 - (c) The General Conditions of Contract;
 - (d) Instructions to tenderers and Specific Conditions of Contract;
 - (e) The Specification;
 - (f) The Drawings;
 - (g) The Priced Bill of Quantities;
 - (h) Any other relevant documents referred to in this Agreement or in the aforementioned documents;

3. In consideration of the payments to be made by the HSCC (I) Ltd. (HSCC) acting as Employer to the contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor through HSCC in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written.

Signed, Sealed, and Delivered by the Said _____

Binding Signature of [HSCC] for and on behalf of Council for Central Research Institute for Homeopathy, A-1/1, Sector-24, Noida.

Binding Signature of Contractor _____

In the presence of

Witness (1) :

Witness (2) :

ANNEXURE - B**APPENDIX TO TENDER**

Important Clause	Clause No.	Remarks
Amount of performance security	27.1(Instruction to bidders)	5% of contract price.
Period of commencement from Engineer's order to commence		1 week.
Amount of Liquidated damages	45.1	0.5% (point five percent) of contract price per week of delay.
Limit of liquidated damages	45.0	10% of contract price
Defect Liability Period	27.1(Instruction to bidders)	6 months
Percentage of retention	44	10%
Limit of retention money	44	5% of the contract price.
Programme of work and progress reports	25.1	Programme updated quarterly, progress reported weekly.
Time of completion of work	1.3 (Instruction to bidders)	60 (Sixty) calendar days for entire works.

PROFORMA FOR PERFORMANCE BANK GUARANTEE

(On a stamp paper of appropriate value from any Nationalised Bank or Scheduled Bank)

To,

M/s HSCC (India) Ltd.,
Plot No. 6(A), Block E, Sector 1,
NOIDA - 201 301.

Dear Sir,

In consideration of the Council for Central Research Institute for Homeopathy, Noida (hereinafter called Employer) which expression shall include his successor and assigns represented by his Consultant M/s. HSCC (I) Ltd., Plot - 6 (A), Block - E, Sector - I, Noida, Uttar Pradesh - 201 301 (hereinafter called HSCC) having awarded to M/s _____ (hereinafter referred to as the said Contractor or 'Contractor' which expression shall wherever the subject or context so permits include its successors and assigns) a contract No _____ in terms inter alia, of the HSCC Letter No. _____ dated _____ and the General Conditions of Contract and upon the condition of the contractor's furnishing security for the performance of the contractor's obligations and discharge of the contractor's liability under and in connection with the said contract upto a sum of Rs. _____ (Rupees _____ only) amounting to _____ percent of the total contract value.

1. We, _____ (hereinafter called 'The Bank' which expression shall include its successors and assigns) having our branch office at _____ and registered /Head office at _____ a company registered under the Companies Act, 1956) hereby jointly and severally undertake to guarantee the payment to the Employer in rupees forthwith on demand in writing and without protest or demur or any and all moneys anywise payable by the contractor to the Employer under in respect of or in connection with the said contract inclusive of all the Employer's losses and damages and costs, (inclusive between attorney and client) charges and expenses and other moneys anywise payable in respect of the above as specified in any notice of demand made by the Employer to the Bank with reference to this guarantee upto an aggregate limit of Rs. _____ (Rupees _____ only).

2. We _____ Bank Ltd. further agree that The Employer shall be sole judge of and as to whether the said contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, cost, charges and expenses caused to or suffered by or that may be caused to or suffered by The Employer on account thereof and the decision of The Employer that the said Contractor has committed such breach or breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered by The Employer from time to time shall be final and binding on us.
3. The Employer shall be at liberty without reference to the Bank and without affecting the full liability of the Bank hereunder to take any other security in respect of the Contractor's obligations and liabilities hereunder or to vary the contract or the work to be done thereunder vis-a-vis the Contractor or to grant time or indulgence to the Contractor or to reduce or to increase or otherwise vary the prices of the total contract value or to release or to forbear from enforcement of all or any of the security and/or any other security(ies) now or hereafter held by The Employer and no such dealing(s) reduction(s) increase(s) or other indulgence(s) or arrangements with the Contractor or release or forbearance whatsoever shall absolve the bank of the full liability to The Employer hereunder or prejudice the rights of The Employer against the bank.
4. This guarantee shall not be determined or affected by the liquidation or winding up, dissolution, or change of constitution or insolvency of the Contractor but shall in all respects and for all purposes be binding and operative until payment of all monies payable to The Employer in terms thereof.
5. The bank hereby waives all rights at any time inconsistent with the terms of this guarantee and the obligations of the Bank in terms hereof shall not be anywise affected or suspended by reason of any dispute or disputes having been raised by the Contractor stopping or preventing or purporting to stop or prevent any payment by the Bank to The Employer in terms hereof.
6. The amount stated in any notice of demand addressed by The Employer to the Bank as liable to be paid to The Employer by the Contractor or as suffered or incurred by The Employer on account of any losses or damages or costs, charges and/or expenses shall be conclusive evidence of the amount so liable to be paid to The Employer or suffered or incurred by The Employer as the case may be and shall be payable by the Bank to The Employer in terms hereof.
7. This guarantee shall be a continuing guarantee and shall remain valid and irrevocable for all claims of The Employer and liabilities of the contractor arising upto and until midnight of _____.

8. This guarantee shall be in addition to any other guarantee or security whatsoever that The Employer may now or at any time anywise may have in relation to the Contractor's obligations/or liabilities under and/or in connection with the said contract, and The Employer shall have full authority to have recourse to or enforce this security in preference to any other guarantee or security which The Employer may have or obtain and no forbearance on the part of The Employer in enforcing or requiring enforcement of any other security shall have the effect of releasing the Bank from its full liability hereunder.
9. It shall not be necessary for The Employer to proceed against the said Contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding that any security which The Employer may have obtained or obtain from the contractor shall at the time when proceedings are taken against the said bank hereunder be outstanding or unrealised.
10. We, the said Bank undertake not to revoke this guarantee during its currency except with the consent of The Employer in writing and agree that any change in the constitution of the said contractor or the said bank shall not discharge our liability hereunder.
11. We _____ the said Bank further that we shall pay forthwith the amount stated in the notice of demand notwithstanding any dispute/difference pending between the parties before the arbitrator and/or that any dispute is being referred to arbitration.
12. Notwithstanding anything contained herein above, our liability under this guarantee shall be restricted to Rs. _____ (Rupees _____) and this guarantee shall remain in force till _____ and unless a claim is made on us within 3 months from that date, that is before _____ all the claims under this guarantee shall be forfeited and we shall be relieved of and discharged from our liabilities thereunder.

Dated _____ day of _____ 20

For and on behalf of Bank.

Issued
under
seal :

TECHNICAL SPECIFICATIONS

1.0 CIVIL WORKS

- 1.01 The specifications and mode of measurements for Civil and Plumbing works shall be in accordance with C.P.W.D. specifications 1996 Volumes I to VI.

Unless otherwise specified in the nomenclature of individual item or in the specifications, the entire work shall be carried out as per the C.P.W.D. specifications with upto date correction slips upto the date of opening of tender.

- 1.02 For the item not covered under CPWD Specifications mentioned above, the work shall be executed as per latest relevant standards/codes published by B.I.S. (formerly ISI) inclusive of all amendments issued thereto or revision thereof, if any, upto the date of opening of tenders.

- 1.03 In case of B.I.S. (formerly I.S.I) codes/specifications are not available, the decision of the Engineer based on acceptable sound engineering practice and local usage shall be final and binding on the contractor.

- 1.04 However, in the event of any discrepancy in the description of any item as given in the schedule of quantities or specifications appended with the tender and the specifications relating to the relevant item as per CPWD specifications mentioned above, or in drawings the former shall prevail.

- 1.05 The work shall be carried out in accordance with the architectural, structural, plumbing and electrical drawings etc. The drawings shall have to be properly co-related before executing the work. In case of any difference noticed between the drawings, final decision, in writing of the Engineer shall be obtained by the contractor. For items, where so required, samples shall be prepared before starting the particular items of work for prior approval of the Engineer and nothing extra shall be payable on this account.

- 1.06 All materials to be used on works shall bear I.S. certification mark unless specifically permitted otherwise in writing. In case I.S. marked materials are not available (not produced), the materials used shall conform to I.S. code or CPWD specifications as applicable in this contract.

In such cases the Engineer shall satisfy himself about the quality of such materials and give his approval in writing. Only articles classified as "First Quality" by the manufacturers shall be used unless otherwise specified. All materials shall be tested as per provisions of the Mandatory Tests in CPWD specifications and the relevant IS specifications. The Engineer may relax the condition regarding testing if the quantity of materials required for the work is small. Proper proof of procurement of materials from authentic manufacturers shall be provided by the contractor to the satisfaction of Engineer. Grade of cement used shall be 43 /53 unless otherwise specified explicitly. The contractor shall get the Design Mix for RCC done by the labs approved by HSCC only. Reinforcement Steel used shall be of FE-415 unless otherwise specified.

- 1.07 In respect of the work of the sub-agencies deployed for doing work of electrification, air-conditioning, external services, other building work, horticulture work, etc. for this project and any other agencies simultaneously executing other works, the contractor shall

afford necessary coordination and facilities for the same. The contractor shall leave such necessary holes, openings, etc. for laying / burrying in the work pipes, cables, conduits, clamps, boxes and hooks for fan clamps, etc. as may be required for the electric, sanitary air-conditioning, fire fighting, PA system, telephone system, C.C.T.V. system, etc. and nothing extra over the agreement rates shall be paid for the same.

- 1.08 Unless otherwise specified in the bill of quantities, the rates for all items of work shall be considered as inclusive of pumping out or bailing out water if required for which no extra payment will be made. This will include water encountered from any source such as rains, floods, subsoil water table being high or due to any other cause whatsoever.
- 1.09 Any cement slurry added over base surface (or) for continuation of concreting for bond is added its cost is deemed to have in built in the item unless otherwise / explicitly stated and nothing extra shall be payable or extra cement considered with consumption on this account.
- 1.10 The rate for all items in which the use of cement is involved is inclusive of charges for curing.
- 1.11 The contractor shall clear the site thoroughly of all scaffolding materials and rubbish etc. left out of his work and dress the site around the building to the satisfaction of the Engineer before the work is considered as complete.
- 1.12 Rates for plastering work (excluding washed grit finish on external wall surfaces) shall include for making grooves, bands etc. wherever required and nothing extra shall be paid for the same.
- 1.13 The rates quoted for all brick/concrete work shall be deemed to include making openings and making good these with the same specifications as shown in drawings and/or as directed. No extra payment shall be made to the contractor on this account.
- 1.14 Rates for all concrete/plaster work shall include for making drip course moulding, grooves etc. wherever required and nothing extra shall be paid for the same.
- 1.15 Rates for flooring work shall include for laying the flooring in strips / simple designs wherever required and nothing extra shall be paid for the same.
- 1.16 The quoted rate shall be for finished items and shall be complete in all respects including the cost of all materials, labour, tools & plants, machinery etc., all taxes, duties, levies, octroi, royalty charges, statutory levies etc. applicable from time to time and any other item required but not mentioned here involved in the operations described above. The client/HSCC/Employer shall not be supplying any material, labour, plant etc. unless explicitly mentioned so.

2.0 **ELECTRICAL WORKS**

2.1 The electrical Installation work shall be carried out in accordance with Indian Standard Code of Practice for Electrical Wiring Installation IS: 732-1989 and IS: 2274-1963. It shall also be in conformity with the current Indian Electricity rules and regulations and requirements of the Local Electricity Supply Authority and Fire Insurance regulations, so far as these become applicable to the installation. Electrical work in general shall be carried out as per following CPWD Specifications with upto date amendment.

- Specifications for Electrical Works Part-I (Internal) by CPWD – 1994 or latest revision
- Specifications for Electrical Works Part-II (External) by CPWD – 1994 or latest revision
- Specifications for Electrical Works Part-III (Lift & escalators) by CPWD - 2003 or latest revision
- Specifications for Electrical Works Part-IV (Substation) by CPWD – 1994 or latest revision

Wherever these specifications calls for a higher standard of material and or workmanship than those required by any of the above mentions regulations and specification then the specification here under shall take precedence over the said regulations and standards.

2.2 The scope of work includes testing & commissioning of all electrical installations, obtaining approvals from Chief Electrical Inspectors, Local Electricity Supply Authority, Pollution Control Board and any other statutory authorities required for the completion of electrical works.

Project : Construction of Guard Room & Meter Room at Central Research Institute, Sector-24, Noida

Bill of Quantities - Civil Works & Services

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
1.00	EARTH WORK					
1.01	Earth work in excavation in foundation trenches or drains (not exceeding 1.5m in width or 10 SqM. on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50m.					
a)	All kinds of soil	25.00	CUM			
1.02	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc., in layers not exceeding 20 cm in depth : consolidating each deposited layer by ramming and watering lead upto 50 m and lift upto 1.5m.					
		15.00	CUM			
1.03	Supplying and filling in plinth and other areas with fine sand including, watering, ramming consolidating and dressing complete.					
		7.00	CUM			
1.04	Extra for disposal of excavated earth for every additional lead of 50m or part thereof upto 500m					
(a)	All kinds of soil	8.00	CUM			
	SUB TOTAL					

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
2.00	CONCRETE WORK					
2.01	Providing and laying cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.					
a)	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size).	8.20	CUM			
2.02	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 12.5 mm nominal size)	9.00	SQM			
2.03	Providing and Applying a coat of residual petroleum bitumen of penetration 80/100 of approved quality using 1.7 Kg per square metre on damp-proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	9.00	SQM			
2.04	Extra for providing and mixing water proofing material in cement concrete work / plaster in the proportion recommended by the manufacturers.	3.00	per bag of 50Kg. of cement used in the mix			
	Sub Total					

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
3.00	REINFORCED CEMENT CONCRETE					
3.01	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement. Admixtures in recommended proportions (as per IS 9103) to accelerate, retard setting of concrete improve workability without impairing strength and durability as directed					
a)	M-25 grade reinforced cement concrete.					
i)	All work upto plinth level	1.00	CUM			
b)	All work from plinth level upto floor V level					
i)	Walls, columns, pillars, posts and struts	1.00	CUM			
ii)	Beams, plinth beams, girders, bressumers, cantilevers, Suspended floors lintels roofs and staircases including spiral staircases, shelves etc.	9.00	CUM			
3.02	Deduct for providing M-20 grade RCC instead of M-25 grade RCC	9.00	CuM			
3.03	Centering and shuttering including strutting, propping etc.with steel tubes and extension piers or built up section of roll steel and steel shuttering up to 3.9 m height and removal of form for :					
a)	Foundations, footings, bases of columns etc., mass concrete, and precast shelves.	6.00	SQM			
b)	Suspended floors, roofs, landing and balconies.	9.00	SQM			

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
c)	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	15.00	SQM			
d)	Columns, pillars, Piers, Abutments posts and struts.	26.00	SQM			
3.04	Reinforcement for RCC work including straightening, cutting, bending, binding and placing in position complete.					
a)	Cold twisted bars/ Thermo mechanically treated bars as mentioned in the drawing.	2.00	Tonne			

SUB TOTAL

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7

4.00 BRICK WORK

4.01	Brick work with bricks of class designation 75 in Cement mortar 1:6 (1cement : 6 coarse sand)					
a)	In foundation and plinth	17.00	CUM			
b)	In Superstructure					
	i) From plinth level to floor V level.	19.00	CUM			

SUB-TOTAL

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.00	DOORS & WINDOWS					
5.01	Providing and fixing powder coated aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular and other sections of approved make confirming to IS:733 and IS: 1285, powder coated to required shade . (Minimum powder coating of 50 micron), fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium `U'/snap beading for glazing/ panelling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and as directed. (Glazing and panelling to be paid for separately.)					
	(i) For fixed portions	46.00	Kg			
	(ii) For shutters of doors, & windows including providing and fixing Stainless Steel friction hinges/ pivots and making provisions for fixing of fittings wherever required including the cost of PVC/ neoprene gasket required as per drawing and as directed. (Fittings shall be paid for separately.)	19.00	Kg			

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.02	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions, curtain walls etc. with neoprene gasket etc. complete as per the architectural drawings and as directed. (Cost of aluminium snap beading shall be paid in basic item).					
a)	With glass panes of 4.0mm thickness (weight not less than 10.00 kg./sqm.)	5.00	SQM			
5.03	Providing and fixing aluminium handles colour anodised (anodic coating not less than grade AC10 as per IS: 1868) to required colour or shade with necessary screws etc. complete.					
a)	125 mm.	10.00	Each			
5.04	Providing and fixing aluminium tower bolt powder coated (powder coating not less than 50 Micron) to required colour or shade with necessary screws etc.					
a)	150 x 10 mm	5.00	Each			
b)	250 x 10 mm	5.00	Each			
5.05	Providing and fixing flush door shutters non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters					
(a)	35mm thick including anodised aluminium butt hinges with necessary screws.	7.00	sqm			

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.06	Providing and fixing 30mm thick factory made P.V.C rigid foam panelled door shutters manufacutered by M/s Rajshri or equivalent made from M.S. tube of 19 gauge thickness size 19x19 mm for styles and 15x15 mm for top and bottom rails, covered with heat moulded PVC "C" channel of 5mm thick sheet and 30x50mm wide to form styles and 5 mm thick and 75 mm wide PVC sheets for top rail, lock rail and bottom rail on either side and 5 mm thick, 20 mm wide cross PVC sheet fitted in the M.S. frame welded/sealed to the styles and rails with 5x30mm PVC sheet beading on either side and joined together with solvent cement adhesive etc., complete as per manufacutrers specificaliton and direction of Engineer-in Charge fixed to frames wiht 4 Nos. M.S. powder coated butt hinges (For W.C. And bathroom shutters)		3 sqm			
5.07	Providing and fixing factory made P.V.C door frame manufacutered by M/s Rajshri or equivalent of size 50x47 mm with a wall thickness of 5mm, made out of extruded 5 mm rigid PVC foram sheet mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15mm M.S. Square tube, the vertical door profiles to be reinforced with 19x19mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100mm size complete as per manufacturers specificaliton and direction of Engineer-in-charge		4.50 metre			

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7

SUB TOTAL

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7

6.00 STEEL WORK

6.01 Providing and fixing circular cast iron box for ceiling fan clamp 140 mm internal dia, 73mm height, 5mm thick rim bottom and top lid of 1.5 mm thick MS sheet with its top surface hacked for proper bonding top lid shall be screwed into the cast iron box by means of 3.3 mm dia round headed screws, one lock at the corners. Clamp shall be made of 12mm dia MS bar bent to shape as per standard drawing.

2.00 Each

SUB TOTAL

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
7.00	FLOORING					
7.01	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete.					
(a)	40mm thick with 20mm nominal size stone aggregate	18.00	SqM			
7.02	Providing and fixing glass strips in joints of terrazzo/ cement concrete floors.					
(a)	40 mm wide and 6 mm thick	31.00	Metre			
7.03	Providing and fixing mirror polished, machine cut for kitchen platforms, vanity counters facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1cement: 4coarse sand) with joints treated with white cement , mixed with matching pigment, epoxy touch ups, including rubbing, curing etc. complete at all levels.					
(a)	Over 0.5 SqM and upto 1.0 SqM					
i)	18mm thick Granite stone	1.00	SQM			
	Area of slab 1.0sqm to 2.0sqm	12.00	SQM			
	SUB TOTAL					

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
8.00	CEILING & ROOFING					
8.01	Providing and laying integral cement based waterproofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc. consisting of following operations.					
a)	Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water proofing compound confirming to IS : 2645 over the RCC slab including cleaning the surface before treatment.					
b)	Laying cement concrete using broken bricks/brick bats 25 mm to 100 mm size with 50% of cement mortar 1:5 (1 cement :5 coarse sand) admixed with proprietary water proofing compound confirming to IS : 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound confirming to IS:2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.					
c)	After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound confirming to IS : 2645.					
d)	Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement: 4 coarse sand) admixed with proprietary water proofing compound confirming to IS: 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300x300 mm square.					

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
e)	<p>The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer.</p> <p>With average thickness of 120 mm and minimum thickness at khurra as 65 mm. The treatment is to be carried out by a specialised agency with the approval of the Engineer and shall be guaranteed fully effective for a minimum period of 10 years.</p> <p>Notwithstanding this, the responsibility of effectiveness of the treatment shall be fully, entirely and unqualifiedly be that of the main contractor for the work.</p>	39	SQM			
8.02	<p>Making khurras 45 x 45 cm with average minimum thickness of 5cm cement concrete 1:2:4 (1:cement: 2 coarse sand: 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1m x 1m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement: 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete.</p>	4.00	Each			
SUB TOTAL						

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
9.00	FINISHING					
9.01	12 mm cement plaster of mix;					
(i)	1:6 (1 cement: 6 medium sand)	77.00	SQM			
9.02	15 mm cement plaster on the rough side of single or half brick wall of mix:					
(a)	1:4 (1 cement: 4 medium sand)	65.00	SQM			
9.03	6 mm cement plaster of mix.1:3 (1 cement : 3 medium sand)	39.00	SQM			
9.04	Supplying and applying dry distemper of approved brand and manufacture (two or more coats) and of required shade on new work, over and including priming coat of whitening to give an even shade.	116.00	sqM			
9.05	Finishing Walls with Premium Acrylic Smooth Exterior paint with Silicone additives "Snowcryl-XT" or equivalent of required shade.					
(a)	New Work (Two or more coats applied @1.43ltr/10 sqm over and including base coat of water proofing cement paint Snowcem Plus or equivalent applied @2.20 kg/10sqm)	65.00	SQM			
	SUB TOTAL					

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7

10.00 MISCELLANEOUS

10.01 Making plinth protection 50 mm thick of cement concrete 1:3:6 (1: cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.

21.00 SQM

SUB-TOTAL

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
11.00	INTERNAL PLUMBING , WATER SUPPLY & SANITARY FIXTURES					
11.01	Providing and fixing on wall face unplasticised-PVC (working pressure 4kg per sqm cm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion. (l) Single socketed pipes					
(a)	160mm	13.00	Metre			
11.02	Providing and fixing on wall face unplasticised-PVC moulded fittings/ accessories for unplasticised-PVC rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion.					
(i)	Coupler 160mm	8.00	Each			
(ii)	Bend 87.5o 160mm	8.00	Each			
(iii)	Shoe (plain) 160mm	8.00	Each			
11.03	Providing & fixing to the inlet mouth of rain water pipe PVC grating					
(a)	For 160 OD pipe	4.00	Each			
	SUB TOTAL					

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.00	SEWERAGE AND DRAINAGE					
12.01	Providing laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the pro-portion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete.					
a)	100 mm diameter	15.00	Metre			
12.02	Providing and laying cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) around S.W./RCC pipes including bed concrete as per standard design:					
a)	100 mm diameter	15.00	Metre			
12.03	Providing and placing in position precast RCC manhole cover of required shape and approved quality. L.D. - 2.5 Reactangular shape	150.00	Each			
	SUB TOTAL					

Item No	Description Of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
13.00	ROAD WORK					
13.01	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, roads, taxi tracks and runways, laid to required slope and camber including consolidation, finishing and tamping complete.	1.65	cum			
13.02	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating, brick masonry chamber with bricks of class designation 50 and water tight C.I. cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design.					
a)	100x100mm size P type	4.00	Each			
	SUB TOTAL					
	TOTAL OF CIVIL WORKS & SERVICES					

Project : Construction of Guard Room & Meter Room at Central Research Institute, Sector-24, Noida

Bill of Quantities - Electrical Works

Sr. No.	Description of items	Qty.	Unit	Rate in Rs (in figures)	Rate in Rs (in words)	Amount
1	2	3	4	5	6	7
1	Supplying and laying of 3x185 sq.mm, aluminium conductor 11KV grade XLPE armoured cable in the existing underground 200 mm dia hume pipe etc complete as required.	65	Metre			
2	Providing and fixing 200 mm dia hume pipe underground (minimum 900 mm below ground) including excavation of trench, refiffing , making proper joint after every length of pipe along with masonry chamber in metering room and after every 12-15 metre for easy laying of cable etc as required.	45	Metre			
3	End termination of 3x185 sq. mm aluminium conductor, 11 KV grade, XLPE armoured cable with heat shrinkable termination kit including connection etc as required.	4	Each			
4	Testing and commissioning of 400 KVA transformer including testing of transformer oil etc complete as required.	1	Job			
5	Dehydration of transformer oil including testing etc complete as required.	450	Litre			

Sr. No.	Description of items	Qty.	Unit	Rate in Rs (in figures)	Rate in Rs (in words)	Amount
1	2	3	4	5	6	7
6	Testing , calibration (setting) of relays at VCB panel and commissioning of VCB panel etc as required.	1	Job			
7	<p>Wiring for light point/fanpoint/ exhaust fan point/call bell point with 1.5 sq.mm. PVC insulated, fire retardant low smoke (FRLS) copper conductor cable, single core/ multi strand, in surface/recessed steel conduit including the following and complete as required.</p> <p>Circuit wiring with 2X1.5sqmm + 1X1.5sqmm (for earthing) PVC insulated fire retardant low smoke (FRLS) copper conductor wires in ISI marked MS Conduit (including supplying and laying ISI marked MS conduit) from MCB Distribution Board to Switchboard(s)</p> <p>Wiring with 2X1.5sqmm + 1X1.5sqmm (for earthing) PVC insulated, fire retardant low smoke (FRLS) copper conductor wires in ISI marked MS Conduit (including supplying and laying ISI marked MS conduit) from Switchboard to Light/Fan/Exhaust fan/Call bell Points or from one switchboard to another switchboard</p> <p>Supplying and Fixing Modular type switches (mudular Bell push in case of call bell points) in suitable size modular metal boxes, base plate & modular cover plates, space for fixing electronic fan regulator in case of fan point wiring etc.</p>					

Sr. No.	Description of items	Qty.	Unit	Rate in Rs (in figures)	Rate in Rs (in words)	Amount
1	2	3	4	5	6	7
	<p>Supplying & Fixing Ceiling Rose in case of Exhaust Fan Points</p> <p>Note :</p> <p>i) Unless otherwise specified all the conduiting work to be done in recess</p> <p>ii) Two or more circuit can be drawn in the same conduit, however, all the circuits in the same conduit shall be on the same phase.</p> <p>Point wiring as mentioned above</p>					7 Points
8	<p>Wiring for 16 amp power plug with 2X4 sqmm PVC insulated, copper conductor, single core cable in surface/recessed ISI marked MS conduit (including supply and laying of ISI marked MS conduit with all accessories) along with 1.5 sqmm PVC insulated, copper conductor, single core cable for loop earthing etc per technical specifications & as required.</p> <p>Directly from MCB-Distribution Board to the Socket Outlets</p>					2 Points
9	<p>Supplying and fixing suitable module modular metal box on surface or in recess including providing and fixing 6 pin 15/16 A modular socket outlet with shutters and 15/16 A modular switch, base plate, modular cover plate, connections, etc. and all civil works complete as required.</p>					2 Each

Sr. No.	Description of items	Qty.	Unit	Rate in Rs (in figures)	Rate in Rs (in words)	Amount
1	2	3	4	5	6	7
10	Supply of following light fixture with high efficiency electronic ballast, starter, capacitor, tubes/lamps, reflector, diffuser, MS body/housing holder etc. complete with all fixing accessories as required.					
i	1X40 watt striplite flourescent light fixture (Philips TMC 19/140 or approved equivalent)	4	Each			
11	Supply of 1400 RPM, 230 mm heavy duty exhaust fan suitable for single phase 230 volts, 50 Hz., AC supply complete with motor, louvers/shutters etc. complete as required.	2	Each			
12	Supply of 450 mm sweep, 1400 RPM, heavy duty wall mounted fan complete with double ball bearing, motor, blades, capacitor etc suitable for single phase 230 volts, 50 Hz., AC supply, complete as required.	1	Each			
13	Installation, testing and commissioning of prewired, flourescent fittings , complete with all accessories and tube etc. directly on ceiling/wall, including connections with 1.5 sq.mm. PVC insulated, FRLS copper conductor, single core/ multi strand cable etc. as required.	4	Each			

Sr. No.	Description of items	Qty.	Unit	Rate in Rs (in figures)	Rate in Rs (in words)	Amount
1	2	3	4	5	6	7
14	Installation, testing and commissioning of exhaust fan of 230 mm sweep in the opening, including making the hole to suit the size of the above fan including , fixing of louvers/ shutters with frame making good the damages etc. as required.	2	Each			
15	Installation, testing and commissioning of wall mounted fan 450 mm sweep including supply and fixing wall bracket arrangement complete as required.	1	Each			
15	Supply and fixing of following sizes of ISI marked MS conduit alongwith the accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of conduit as recessed required 20 mm dia	10	Metre			
16	Supplying and fixing 2 module modular metal box on surface or in recess including providing and fixing following no., following modular telephone socket outlet, base plate, modular connections, etc.complete as required.					
i	1 pair cord outlet (Jack Type)	1	Each			

Sr. No.	Description of items	Qty.	Unit	Rate in Rs (in figures)	Rate in Rs (in words)	Amount
1	2	3	4	5	6	7
17	Supply and laying of 2x4 sq. mm PVC insulated, armoured aluminium cable of 1.1 KV grade as per IS 1554 including excavation, sand cushioning, protective covering, refilling the trench including earthing etc as required.		50 Metre			
18	Supply, installation, testing and commissioning of 16 amp SPN switch Fuse Unit in wall/ recess including connection with existing 2x4 sq. mm cable with all civil work earthing etc as required.		2 Each			

TOTAL OF ELECTRICAL WORKS

**Project : Construction of Guard Room & Meter Room at Central Research Institute, Sector-24,
Noida**

SUMMARY OF COST

Total Cost (In Rs.)

1) Civil Works & Services

2) Electrical Works

Grand Total

(Total Cost in Words)