SCHEDULE 'A'

Schedule of quantities (Enclosed)

SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Description of item</th>
<th>Quantity</th>
<th>Rates in figures and words at which the materials will be charged to the contractor</th>
<th>Place of Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NIL</td>
<td>NIL</td>
<td>NIL</td>
<td></td>
</tr>
</tbody>
</table>
SCHEDULE 'C'

Tools and plants to be hired to the contractor

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Description</th>
<th>Hire charges per day</th>
<th>Place of issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NIL</td>
<td>NIL</td>
<td></td>
</tr>
</tbody>
</table>

SCHEDULE 'D'

Extra schedule for specific requirements/documents for the work, if any. - NIL

SCHEDULE 'F'

Reference to General Conditions of contract.

Name of work: “Providing Aluminium doors & windows for Autopsy Block of Indira Gandhi Medical College & Research Institute at Kadirgamam, Puducherry.”.

Estimated Cost of Work: ₹ 7,06,568/-
Earnest money: ₹ 14,131/-
Performance Guarantee: 5% of the tendered value.
Security Deposit: 5% of the tendered value

General Rules & Directions:

Officer inviting tender
EXECUTIVE ENGINEER –II
IGMC&RI, PUDUCHERRY

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with clauses 12.2 & 12.3 see below

Definitions:

Engineer-in-Charge
EXECUTIVE ENGINEER – I, IGMC&RI, PUDUCHERRY.

Accepting Authority:
As per delegation of powers to Indira Gandhi Medical College and Research Institute officers.

Percentage on cost of materials and labour to cover all overheads and profits 15%
Clause 1
i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance, in days.
   15 days
ii) Maximum allowable extension beyond the period provided in i) above in days
    7 days
Clause 2
Authority for fixing compensation under Clause 2
As per delegation of powers to Indira Gandhi Medical College and Research Institute officers
Clause 2A
Whether Clause 2A shall be applicable
Yes
Clause 5
Number of days from the date of issue of letter of acceptance for reckoning date of start
10 days
Milestone (S) as per table given below:

**TABLE OF MILESTONE (S)**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Description of Milestone (Physical)</th>
<th>Time allowed in days (from date of start)</th>
<th>Amount to be withheld in case of non-achievement of milestone.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td><strong>DELETED</strong></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Or)
<table>
<thead>
<tr>
<th>SI.No.</th>
<th>Financial Progress</th>
<th>Time allowed (from date of start)</th>
<th>Amount to be withheld in case of non achievement of milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1/8th (of whole work)</td>
<td>1/4th (of the whole work)</td>
<td>In the event of not achieving the necessary progress as assessed from the running payments, 1% of the tendered value of the work will be withheld for failure of each milestone.</td>
</tr>
<tr>
<td>2.</td>
<td>3/8th (of whole work)</td>
<td>1/2 (-do-)</td>
<td>In the event of not achieving the necessary progress as assessed from the running payments, 1% of the tendered value of the work will be withheld for failure of each milestone.</td>
</tr>
<tr>
<td>3.</td>
<td>3/4th (of whole work)</td>
<td>3/4th (-do-)</td>
<td>In the event of not achieving the necessary progress as assessed from the running payments, 1% of the tendered value of the work will be withheld for failure of each milestone.</td>
</tr>
<tr>
<td>4.</td>
<td>Full</td>
<td>Full.</td>
<td>In the event of not achieving the necessary progress as assessed from the running payments, 1% of the tendered value of the work will be withheld for failure of each milestone.</td>
</tr>
</tbody>
</table>

Time allowed for execution of work 2 Months

Authority to give fair and reasonable extension of time for completion of work. As per the powers delegated to the officers of the IGMC&RI.

Clause 7
Gross work to be done together with net payment / adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment

Clause 10CC Deleted

Clause 11 Specifications to be followed for execution of works CPWD SPECIFICATIONS and special specification as enclosed in the tender documents

Clause 12
12.2 & 12.3 Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work 30 %

12.5 Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work 100 %

Clause 16 Competent Authority for deciding reduced rates As per the powers delegated to the officers of the IGMC&RI.
 Clause 36 (i)

GENERAL GUIDELINES FOR FIXING REQUIREMENT OF TECHNICAL STAFF FOR A WORK

<table>
<thead>
<tr>
<th>Cost of work (Rs. In Lakh)</th>
<th>Requirement of Technical staff</th>
<th>Minimum experience (Years)</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Qualification</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>More than 1000</td>
<td>i) Project Manager with degree in corresponding discipline of Engineering</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>ii) Graduate Engineer</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>iii) Graduate Engineer or Diploma Engineer</td>
<td>2</td>
<td>Nil</td>
</tr>
<tr>
<td>500 to 1000</td>
<td>i) Graduate Engineer</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ii) Graduate Engineer or Diploma Engineer</td>
<td>2</td>
<td>Nil</td>
</tr>
<tr>
<td>200 to 500</td>
<td>i) Graduate Engineer</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ii) Graduate Engineer or Diploma Engineer</td>
<td>1</td>
<td>Nil</td>
</tr>
<tr>
<td>50 to 200</td>
<td>Graduate Engineer</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>10 to 50</td>
<td>Graduate Engineer or Diploma Engineer</td>
<td>1</td>
<td>Nil</td>
</tr>
</tbody>
</table>

Rate of recovery in case of non compliance of Clause 36 (i) be stipulated at following rates.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Qualification</th>
<th>Experience (years)</th>
<th>Rate of recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>Project Manager with Degree</td>
<td>10</td>
<td>Rs. 20,000/- p.m.</td>
</tr>
<tr>
<td>(ii)</td>
<td>Graduate Engineer</td>
<td>5</td>
<td>Rs. 15,000/- p.m.</td>
</tr>
<tr>
<td>(iii)</td>
<td>Graduate Engineer or Diploma Engineer</td>
<td>Nil</td>
<td>Rs. 10,000/- p.m.</td>
</tr>
</tbody>
</table>

Nothing extra need to be added while preparing market rate justified amount of the work if stipulation is made as per above recommended scale of requirement of technical staff.
DEDUCTION OF “CESS”

During the course of contract period deduction of “CESS” to provide social security and various welfare benefits through the Puducherry Building and the other construction worker’s Board under section 18 of the building and other construction workers Cess collection (RECS) Act 1996 shall be made at the rate of 1% (one percent) of the gross amount of each bill or as per the advice of the Government of Puducherry.
ADDITIONAL CONDITIONS

1. The contractor shall make his own arrangements for obtaining electric connections if required and make necessary payments directly to the department concerned.

2. Other agencies doing works related with this project will also simultaneously execute the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying/burying in the work of pipes, cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for other agencies. Conduits for electrical wiring/cables will be laid in a way that they leave enough space for concreting and do not adversely affect the structural members. Nothing extra over the agreement rates shall be paid for the same.

3. Some restrictions may be imposed by the security staff etc., on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on this account.

4. (a) The building work will be carried out in the manner complying in all respects with the requirements of relevant bye-laws of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-Charge and nothing extra will be paid on this account.

(b) The work of water supply, internal sanitary installations and drainage work etc. shall be carried out as per local Municipal Corporation or such local body-bye-laws and the contractor shall produce necessary completion certificate from such authorities after completion of the work.

(c) Water tanks, taps sanitary, water supply and drainage pipes, fittings and accessories should conform to bye-laws and specifications of the Municipal Body/Corporation where C P W D specifications are not available. The contractor should engage licensed plumbers for the work and get the materials (fixtures/ fittings) tested by the Municipal Body/Corporation authorities wherever required at his own cost.

(d) The contractor shall comply with proper and legal orders and directions of the local or public authority or municipality and abide by their rules and regulations and pay all fees and charge, which he may be liable.

5. The contractor shall give a performance test of the entire installation(s) as per standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.

6. Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been in built in the items and nothing extra shall be payable (or) extra cement considered in consumption on this account.

7. The Contractor shall furnish along with the tender his proposed methodology and programme of construction in comprehensive manner of executing and completing the work with in the stipulated period. The programme shall consists of the various components for each part of the work stipulated to be completed and a bar chart may be appended in this connection.
8. The contractor shall take instructions from the Engineer-in-Charge for stacking of materials in any place. No excavated earth or building material shall be stacked on areas where other buildings, roads, services compound walls are to be constructed.

9. The contractor shall provide necessary watch and ward for guarding the society materials kept within the site of work for which nothing will be paid extra.

10. Royalty, if any that may have to be paid to local bodies and other organization shall be paid by the contractor. The quoted rates of relevant items are deemed to include such charges and nothing extra shall be paid.

11. The Rate for RCC works include cost of concreting in. sloped & curved roof, chajjas & beams & no extra rate shall be payable unless otherwise specifically provided in the schedule of quantities.

12. The Rate for Centering & shuttering under concrete items include cost of Centering & shuttering in curves & arches up to 20 degrees.

13. The Contractor should construct proper mortar bands of lean mix with adequate depth & smaller size over the curved roof for flooding with water & proper curing. In case of Arches, wet gunny bags shall be used for a period of two weeks.

14. Architectural Drawings are available with the Executive Engineer - I, Pondicherry Medical College Society, Pondicherry. Tenderer are advised to look in to the drawing before tendering and acknowledgement of having seen the drawings to be given to Executive Engineer - I, Pondicherry Medical College Society.

15. Samples of various sections related to Aluminium Windows and its fittings (Granite/Ceramic/ Marble/Kota stone tiles/slabs of various types are displayed in the O/o the Executive Engineer - I, Pondicherry Medical College Society Engineering Cell, Pondicherry. Contractor shall quote the rates for the respective items according to these samples, which are approved.

16. Samples of Ceramic tiles, pre- cast terrazo tile and other installation of sanitary, water supply and drainage etc. shall be as described in the Schedule of Quantities are displayed in the office of the Engineer-in-Charge which may be seen by the contractors before quoting the rates.

17. Samples of all materials, fixtures, fittings like flooring tiles, wall tiles, doors, windows, sanitary fittings, roofing sheets etc. shall be got approved in advance before placing order for them. Similarly samples of all works like fixing roofing sheets, flooring, Plastering, painting etc. shall be prepared in advance and got approved from the Engineer-in-Charge before taking up the work.

18. Kota stone slab for treads and risers of steps shall be in single piece.

19. Test on PVC Doors
PVC paneled door shutters should be conform to the criteria of testing as per latest IS: 3204 with up to date amendments.

20. The structural and architectural drawings shall at all times be properly correlated before executing any work. However in case of any discrepancy in the item given in the schedule of quantities appended with the tender and Architectural drawing relating to the relevant item, the former shall prevail unless and otherwise given in writing by the Engineer – in – charge.
21. Any damages to work resulting from rains or from any other cause until the work is taken over by the society after completion, will be made good by the Contractor at his own cost.

22. Empty cement bags shall not be removed from the site of work without the permission of the Engineer - in - Charge.

23. The Contractor will have to work according to the Programme of work, decided by the Engineer - in - Charge.

24. If there are any restrictions from the local body for erection of labour sheds in the place of work, the Contractor shall be bound by such restrictions and erect the sheds at permissible places only.

25. The Contractor shall be allowed to set up labour camp one week before the commencement of work and the camp should be got vacated by the Contractor within fifteen days from the actual date of completion of the work.

26. Surplus earth and other excavated and dismantled materials shall be property of the society and shall not be removed by the contractor, from the site of work without obtaining the approval of the Engineer-in-Charge in writing.

27. The Contractor has to deposit with the Engineer-in-Charge at the departmental stores, the approved paints as recommended and the same shall be issued during the progress of painting work. The Engineer-in-Charge shall decide the probable time by which the paint will be needed.

28. The Contractor shall have to deposit water proofing compound as per the actual requirement with the Engineer-in-Charge and the same shall be issued to work according to requirement. The Engineer-in-Charge shall decide the probable time by which the material will be needed.

29. For all doors and windows, whether factory made or otherwise, cleats and rubber buffers 30mm dia shall be provided as per direction of the Engineer-in-Charge and the rate for the shutters shall include the cost of providing such cleats and buffers.

30. For the purpose of recording measurement and preparing running bills the abbreviated nomenclature indicated in the publications Abbreviated Nomenclature shall be followed. The abbreviated nomenclature shall be taken to cover all the materials and operations as per the complete nomenclature of the relevant items in the agreement and other relevant specifications.

31. In the case of items for which abbreviated nomenclature is not available in the above cited publication and also in case of extra and Substituted items of work for which abbreviated nomenclature is not provided in the agreement the full nomenclature of the items shall be reproduced in the measurement books and bill forms for running account bill.

32. The Contractor shall not deposit any materials which will cause inconvenience to the public. The Engineer-in-Charge may require the contractor to remove any material which are considered by him to be a danger or causing inconvenience to the public or cause them to be removed at Contractor's cost and risk.
The contractor shall make his own arrangements to provide the Bitumen required for the work from approved public sector, refineries such as IOC, BP, HPL etc., and produce the paid voucher to the Engineer-in-charge the materials so procured shall be got tested before use.

Wherever any reference is made as “As per Architects specification” to any of the item in the “Schedule A” it shall be executed in accordance with the drawings/specification/sample provided by the Architect, if the specification for the same is not available with CPWD/IS/BIS specification. The Engineer in charge shall be the sole deciding authority as to the meaning interpretation and implication for the item of work as per Architect specification.

The work shall in general be carried out in accordance with CPWD specifications for works with correction slips issued time to time.

If the said specifications differ from those given in the description of any particular item in the schedule of quantities and specifications stipulated herein, the latter shall prevail.

If the detailed description of any particular item in the schedule of quantities and specifications finally accepted by the society differs from the particular specifications given hereunder, the former shall prevail to the extent applicable.

If the particular specifications given hereunder differs from I.S. code provision, in any respect, the former shall prevail.

When working near existing structures, care shall be taken to avoid any damage to such structures, any such damage caused intentionally or unintentionally shall be restored to original and or acceptable condition and to the satisfaction of the Engineer-in-charge.

The contractor shall given to the Municipality, Police and other authorities all notices etc. that may be required to be given as per law and obtain all requisite licenses for temporary obstructions, enclosures and pay all fees, taxes and charges which may be leviable on account of the operations during the execution of the contract. No extra claim of the contractor will be entertained by the society on this account.

The contractor shall get himself acquainted with the nature and extent of the work and satisfy himself about the availability of quarry and of kln for collection and conveyance of materials required for the construction. The contractor's quoted rate should take into account all these factors and will not be allowed and extra lead for collection and conveyance of materials for any reason whatsoever.

The contractor shall conform to the provision of any Government Acts which relate to works and to the regulations and bye-laws of any local authorities. The contractors shall give all notices required by the said Acts or Laws etc., pay all fees payable to such authorities and allow for these contingencies in his tendered rates including fees for encroachments, costs of restoration etc., and all other fees payable to the local authorities.
43. All manufactured materials used on the work shall have ISI mark. In case of materials for which no manufacturer has been licensed to manufacture the materials with ISI marking, the material shall conform to the provision's of C.P.W.D. / IRC /MORTH/ CPHEEO specifications or the ISI code (In the absence of C.P.W.D. specifications or other specification mentioned above for any particular material). In the case of all materials, tests shall be conducted to ensure that they conform to the specifications of codes mentioned above.

44. All materials which are to be tested before use on the work should be procured at least 2 months before use on the work so that enough time is available for testing them before they are actually used.

45. The cost of samples and all other incidental charges such as packing, transportation, to the laboratory etc., shall be borne by the contractor. The testing fee shall be paid by the Engineer-in-Charge if the material passes the test.

46. BIS marked materials may also be got tested as per the decision of the Engineer-in-Charge. Contractor shall be responsible to ensure the stipulated quality even if the material have BIS certification marks.

47. Pressed clay tiles to be used in the work shall confirm to IS 2690 (Part – I) 1975, however the water absorption of tiles when tested shall not exceed 18%.
CONDITIONS FOR CEMENT AND STEEL BROUGHT BY THE CONTRACTOR FOR USE IN THE WORK

1.0. Conditions for Cement

1.1. The contractor shall procure 43 grade (conforming to IS: 8112) Ordinary Portland cement as required in the work, from reputed manufacturers of cement having a production capacity of one million tonnes per annum or more, such as ACC, Ultra Tech, J.P. Rewa, Vikram, Shree Cement, Birla Jute and Cement Corporation of India, etc., as approved by the Ministry of Industry, Government of India, and holding license to use ISI certification mark for their product whose name shall be got approved from the Engineer-in-Charge. Supply of cement shall be taken in 50 kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the contractor do not conform to the relevant BIS codes, the same shall be stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so.

1.2. The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer – in – Charge.

1.3. The cement go-down of the capacity to store a maximum of 2000 bags of cement shall be constructed by the contractor at site of work for which no extra payment shall be made. Double lock provision shall be made to the door of the cement go-down. The keys of one lock shall remain with the Engineer-in-Charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement go-down. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.

1.4. The contractor shall supply free of charge the cement required for testing. The frequency and the details of the test shall be decided by the Engineer – in – charge depending on the quantum of supply in each batch. The cost of tests shall be born by the contractor / Department in the manner indicated below:

a) By the contractor, if the results show that the cement does not conform to the relevant BIS codes. b) By the Department, if the results show that the cement conforms to relevant BIS codes.

1.5. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in the contract and shall be governed by conditions laid therein. Items for which standard coefficients for cement consumption are not available in PSR or DSR, the same shall be decided by the Engineer-In-Charge.

1.6. Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-Charge.

1.7. The cement bags shall be stacked on proper floors consisting of two layers of dry bricks laid on well consolidated earth at a level of at least one foot above ground level. The stacks shall be in rows of 2 and 10 bags high with minimum of 0.60m clear space allround. The bags should be placed horizontally continuous in each line. Actual size
1.8. Cement register for the cement shall be maintained at site. The account of daily receipts and issues of cement shall be maintained in register in the pro forma proscribed and signed daily by contractor or his authorized agent.

2. Conditions for Steel

2.1. The contractor shall procure steel reinforcement bars confirming to relevant BIS codes from main producers as approved by the ministry of steel and secondary producers or re-rollers having valid BIS license. For TMT bars, conforming to relevant BIS code, procurement shall be made from main producers and secondary producers having valid BIS license. The contractor shall have to obtain and furnish test certificates to the Engineer-in-Charge in respect of all supplies of steel brought by him to the site of work. Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to BIS codes, the same shall stand rejected and shall be removed from the site of work by the contractor at his cost within a week's time from written orders from the Engineer-In-Charge to do so.

2.2. The steel reinforcement shall be brought to the site in bulk supply of 10 tonnes or more or as decided by the Engineer-In-Charge.

2.3. The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion and corrosion and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.

2.4. For checking nominal mass, tensile strength, bend test, re-bend test, etc. specimen of sufficient length shall be cut from each size of the bar at random at frequency not less than that specified below.

<table>
<thead>
<tr>
<th>Size of Bar</th>
<th>For consignment below 100 tonnes</th>
<th>For consignment over 100 tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 10mm</td>
<td>One sample for each 25 tonnes or part thereof</td>
<td>One sample for each 40 tonnes or part thereof</td>
</tr>
<tr>
<td>10mm to 16mm dia.</td>
<td>One sample for each 35 tonnes or part thereof</td>
<td>One sample for each 45 tonnes or part thereof</td>
</tr>
<tr>
<td>Over 16mm dia.</td>
<td>One sample for each 45 tonnes or part thereof</td>
<td>One sample for each 50 tonnes or part thereof</td>
</tr>
</tbody>
</table>

2.5. The contractor shall supply free of charge the steel required for the testing. The cost of tests shall be borne by the contractor / society in the manner indicated below.

2.5.1. By the contractor, if the results show that the steel does not conform to relevant BIS codes.

2.5.2. By the Department, if the results show that the steel conforms to relevant BIS Codes.
2.6. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in the contract and shall be governed by conditions laid therein.

2.7. Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.

2.8. The standard section weights referred to as standard tables in para 5.3.3 in CPWD specifications, 1996 Vol-II to be considered for conversions of length of various sizes of M.S. bars and cold twisted bars / high yield strength deformed bars / thermo mechanically treated bars into weight are as under.

<table>
<thead>
<tr>
<th>Size (Diameter) mm (1)</th>
<th>Weight Kg/m (2)</th>
<th>Size (Diameter) mm (3)</th>
<th>Weight Kg/m (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>0.222</td>
<td>25</td>
<td>3.855</td>
</tr>
<tr>
<td>8</td>
<td>0.395</td>
<td>28</td>
<td>4.836</td>
</tr>
<tr>
<td>10</td>
<td>0.617</td>
<td>32</td>
<td>6.316</td>
</tr>
<tr>
<td>12</td>
<td>0.888</td>
<td>36</td>
<td>7.994</td>
</tr>
<tr>
<td>16</td>
<td>1.579</td>
<td>40</td>
<td>9.869</td>
</tr>
<tr>
<td>18</td>
<td>1.999</td>
<td>45</td>
<td>12.490</td>
</tr>
<tr>
<td>20</td>
<td>2.467</td>
<td>50</td>
<td>15.424</td>
</tr>
<tr>
<td>22</td>
<td>2.985</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the steel, measurement will be regulated on sectional weight basis, weight being calculated with the help of the above tables. The weight shall be taken as per actual basis, if found lower than the standard weight but within tolerance limit as per relevant IS Codes. Nothing extra shall be paid for over weight of steel sections than given in the table.

The mild steel to be used shall confirm to IS:432 – Cold Twisted Bars/High Yield Strength deformed bars & thermo mechanically treated bars shall confirm to IS: 1786. the contractor shall submit challan / bill/ gate pass / cash memo in support of material purchased from main producers as approved by ministry of steel and secondary producers or re-rollers having valid BIS license. For TMT bars conforming to relevant BIS code. Procurement shall be made from main producers and secondary producers having valid BIS license.

Over theoretical quantities of materials so computed a variation shall be allowed as specified in schedule ‘F’. If the quantities of materials actually used are less than the theoretical quantities including authorized variation, the cost at market rates including cartage to the site of such quantities of materials less used at site as determined by Engineer – in – Charge which shall be final and binding, shall be recovered from the contractor without prejudice to society rights / remedies available under the contract, for action against substandard work.
ADDITIONAL SPECIFICATIONS.

The additional specifications given below are not substituted to I S specifications. These shall be read along with I S specifications

GENERAL

1. The work shall be carried out using metric dimensions only and shall be measured and paid in metric dimensions. F P S units, if any, mentioned in drawings etc are for guidance only

2. Wherever any reference to any Indian Standard Specification occurs in the documents relating to this contract same shall be inclusive of all amendments issued there to or revision there of if any, up to the date of receipt of tenders.

3. Unless otherwise specified in the schedule of quantities the rate for the various items are for all heights and locations.

4. The tenderer shall study the item description, the relevant drawings and satisfy himself the item of work to be carried.

WOOD WORK

1. The timber to be used in the work should be best quality specified.
2. All glass panes used for doors and windows shall be single sheet.

ALUMINIUM WORK

1. The aluminium doors, windows, ventilators, fixed glazing etc shall be manufactured as per architectural drawings. Section manufactured by standard manufactures shall be used. The name of the manufacturers shall be got approved from the Engineer - in-charge in advance.

2. The contractor shall submit necessary shop drawings, based on architectural drawings supplied to him, indicating the section numbers as per manufacturers catalogue, their unit weight, total weight of each unit, method of jointing the various members including details of hinges, rollers, handles etc to the Engineer - in – Charge for his approval. Only after the shop drawings are approved the required material shall be procured. The Engineer - in - Charge may modify the drawings and the work should be executed as per the modified drawings.

3. The weight of the doors, windows etc shall be calculated considering the length and weight per unit length of various aluminium members only. The weight of gaskets, glazing, rollers, stoppers etc shall not be considered.
4. The anodic coating of the aluminium section shall be as per the thickness specified in the schedule of quantities. The thickness of anodic coating shall be got tested in a reputed laboratory. Method of sections shall be employed for finding the thickness the anodic coating shall confirm to IS 1868 : 1982.

5. The various tests on aluminium sections shall be conducted in accordance with relevant IS codes.

6. The weight of aluminium section shall be least of the following
   i) Actual weight per unit length.
   ii) Weight as mentioned in the catalogue of the manufacturer.

7. The fabricated aluminium sections shall be given a lacquer coating which shall be maintained during the construction period to prevent damage to the aluminium sections. The same shall be cleaned and polished before handing over the building.

8. The doors, windows, ventilators etc shall be provided with glass of specified type and thickness. Weather sealing neoprene gaskets shall be provided while fixing the glass.

9. If the thickness of glass is not mentioned then the same shall be as per CPWD specifications as per area of opening.

10. The sliding shutters of windows shall be provided with superior quality nylon / metal rollers, aluminium stoppers and special type locking arrangements. The arrangement shall be got approved from the Engineer - In-Charge before procuring them.

11. The aluminum sections shall be connected to each other, wherever needed, using extruded aluminium angles of suitable size and thickness not less than 6 mm using stainless steel screws. Such connecting angles shall not be measured for payment.

12. Wherever aluminium doors, windows etc are to be fixed touching the soffit of beams a clear gap of min 6 mm may be left between the bottom of beam and top of aluminium member and the same shall be filled with silicon sealant of approved quality.

13. The rate shall be for all heights and locations and shall include all material, labour etc unless specified in the item description.
RCC WORK:

The Mixing of Concrete shall be done in the mechanical mixer. Besides the mixer should also have arrangement for weighing water so that, water cement ratio can be controlled more effectively.

For all RCC works only factory made round type cover blocks shall be used instead of pre cast cover blocks as per 5.3.2.2 of CPWD Specification. The CPWD specification stands modified to the extent.

All stone aggregate, sand, stone, dust, etc., shall be obtained only from quarries or other sources approved by the Engineer- in – charge before they are actually procured and used in the work.

Necessary washing, screening of coarse and fine aggregate, etc., shall be done at site as per requirements of Engineer – in – Charge.

EARTH FILLING:

In respect of item filling in foundations, plinth and the area wherever required with earth brought from out side, the rate is inclusive for all lifts and leads of filling and nothing extra shall be payable.
PARTICULAR SPECIFICATIONS FOR WATER PROOFING TREATMENT

1. WATER PROOFING TREATMENT

1.1. GENERAL

1.1.1 All the water proofing treatment shall be got executed through one of the approved agencies as approved by the Engineer – in - Charge.

1.1.2 The contractor shall furnish the following particulars immediately after the issue of letter of acceptance by the society.

a) The name of the specialized firm.

b) The trade names of the product. which would be used.

c) List of works were the treatment has been used.

d) Quantity of chlorides and sulphides used in the product.

2. INTEGRAL CEMENT BASED WATER PROOFING TREATMENT

2.1 Treatment for roof surface:

2.2 The brick bats shall be from well burnt bricks. The proprietary waterproofing compound shall bear I.S.I mark and shall conform to I.S. 2645. Before execution of work, water proofing compound shall be procured and brought to site from which random sample would be got tested for its conformance to I.S Code in an approved laboratory. The proprietary waterproofing compound shall be added at the rate recommend by the specialist firms.

2.2.1 The finished surface after water proofing treatment shall have minimum slope of 1 in 80. At no point, the thickness of water proofing treatment shall be less than 65mm.

2.2.2 While treatment of roof surface is done it shall be ensured that the outlet drain pipes have been fixed and mouths at the entrance have been eased and rounded off properly for easy flow of water.

2.2.3 The surface where the waterproofing is to be done shall be prepared by thoroughly cleaning with wire brushes. All loose scales, laitance shall be removed and dusted off and washed clean with water. The surface shall then be treated be with neat cement slurry @ 2.75 kg per sqm, admixed with proprietary waterproofing compound, in proportion as recommended by the manufacturer, to penetrate into crevices and fill up all the pores in the surface. This cement slurry shall be applied at the junction of parapet and terrace slab including the vertical face of the parapet upto 300 mm.

2.2.4 After the slurry coat is applied, a 20 mm thick layer of cement mortar not leaner than 1:5 (1cement : 5 coarse sand) admixed with proprietary water proofing
compound conforming to IS: 2645 shall be laid. Then a layer of well burnt brick bats shall be laid in cement mortar of mix as specified by the specialist firm but not leaner than 1:5 (1 cement: 5 coarse sand) admixed with proprietary waterproofing compound. This layer shall be laid to required gradient and joints filled to half the depth. The brick bat layer shall be rounded at the junction with the parapet and tapered towards top for a height of 300mm. Curing of this layer shall be done for 2 days.

2.2.5 After curing the surface shall be applied with a coat of cement slurry admixed with proprietary water proofing compound.

2.2.6 Joints of brick bat layer shall then be filled fully with cement mortar of mix as specified by the specialist firm but not leaner than 1:4 (1 cement 4 coarse sand) admixed with proprietary water proofing compound and filially top finished with average 20mm thick layer of joint less cement mortar of same mix and finished smooth with cement slurry admixed with proprietary water proofing compound. The finished surface shall have marking of 300 x 300mm false square to give the appearance of tiles. Where the water proofing treatment is to be finished with china mosaic tile flooring, the top surface of the water proofing treatment shall be finished rough and false square shall not be made.

2.2.7 Curing and final test of water proofing treatment shall be done for a minimum period of two weeks by ponding water. The water for this purpose shall be arranged by the Contractor at his own cost. Nothing extra shall be payable on this account.

2.2.8 MEASUREMENTS: The measurements shall be taken along the finished surface of treatment including the rounded and tapered portion at junction of parapet wall. Length and breadth shall be measured correct to one centimeter and area shall to worked out to nearest 0.01sq.m. No deduction in measurements shall be made for either opening or recesses for chimneys, stacks, roof lights and the like for areas upto 0.40 sq.m nor anything extra shall be payable for forming such openings. For similar areas exceeding 0.40 sq.m deductions shall made in measurements for full openings and nothing extra shall be paid for making such openings.

2.2.9 RATES: The rate shall include the cost of all labour and materials involved in all operations described above and as per the item description.

3 SUNKEN FLOOR SLAB, ITS TREATMENT ETC.

3.1 Brickbat aggregate shall be from well burnt bricks. The proprietary water proofing compound and the quantity to be used shall be as per Para 2.1.1.

3.2 The surface shall be thoroughly cleaned with wire brushes, All loose scales, laintance shall be removed and dusted off. The surface bottom as well sides shall be applied with a coat of cement slurry admixed with proprietary water proofing compound to penetrate into crevices and fill up all the pores in the surface.

3.3 After the slurry coat is laid, a 20mm thick layer of cement mortar not leaner than 1:5 (1 cement: 5 coarse sand) admixed with proprietary water proofing compound conforming to IS: 2645 shall be laid. Then a layer of well burnt brick bats of
3.4 After curing, the surface shall be applied with a coat of neat cement slurry admixed with proprietary water proofing compound.

3.5 Joints of brick bat shall be filled fully with cement mortar of mix as specified by firm but not leaner than 1:4 (1 cement : 4 coarse sand) admixed with proprietary waterproofing compound and top finished with average 20mm thick layer of same mortar This layer of mortar shall be continued to the sides of beam/ wall of the sunk etc. The height upto that this treatment is to be extended on the sides shall be directed by the Engineer - in - Charge. The surface shall be finished smooth with cement slurry admixed with proprietary water proofing compound. No chequers or false squares shall be marked on the finished surface.

3.6 While the water proofing treatment is done, it shall be ensured that the outlet pipes are properly fixed and the gaps between the wall and pipes are properly filled with brick / stone aggregate and cement mortar admixed with proprietary water proofing compound and grouted with cement slurry admixed with proprietary waterproofing compound.

3.7 Waterproof treatment shall be cured for a minimum period of two weeks.

3.8 Measurements: Measurements for the floor treatment shall be taken on the plan area of floor treated. Nothing extra shall be paid for rounding off at junctions and taking the treatment along the sides of beams and walls for about 150mm.

3.9 Rates: The rate shall include the cost of all labour and material involved in all the operations described above.

4. WATER PROOFING TREATMENT FOR THE BASEMENT WALLS AND RAFT

4.1 The water proofing items shall be got executed through one of the approved agencies. The integral cement based water proofing treatment shall be as per the item description and as directed by Engineer-in-charge

4.2 The specialist agency for water proofing work shall provide necessary sleeves made out of GI pipe (payment for which shall be made under relevant item) in the water proofing treatment at base and the raft for release of uplift pressure till the pressure is taken by the rock anchors and the dead weight of the building. The necessary provisions shall be made for filling these sleeves with cement concrete of same grade and then pressure grouting these holes with polymer modified cement slurry using aluminium nipples etc. at a later date. However, the agency shall ensure complete water tightness of the raft and the water proofing treatment below raft.
4.3 The specialist agency for water proofing shall also grout the junctions of the rock anchors with the concrete of the basement raft. Nothing extra shall be payable on this account and shall not be measured separately for payment.

4.4 The specialist agency for water proofing work shall also grout the junctions of the various service lines entering or coming out through the basement wall. Nothing extra shall be payable on this account and shall not be measured separately for payment.

4.5 The plain cement concrete layer provided at the base over the basement raft as well as over the top of the upper basement slab shall be admixed with water proofing compound confirming to IS: 2645. The payment for providing water proofing compound shall be made under item no: The guarantee for the water proofing treatment shall include dismantling and re-laying the plain cement concrete, if required for rectifying any defect in the water proofing treatment. Nothing extra shall be payable on this account and shall not be measured separately for payment.

5. GUARANTEE FOR WATER PROOFING TREATMENT

Ten years guarantee in prescribed proforma attached shall be given by the contractor for the water proofing treatment. In addition 10% (ten percent) of the cost of these items of water proofing under this subhead shall be retained as guarantee to watch the performance of the work executed. However, half of this amount (withheld) would be released after five years from the date of completion of the work, if the performance of the waterproofing works is satisfactory. The remaining withheld amount shall be released after completion of ten years from the date of completion of work, if the performance of the waterproofing work is satisfactory. If any defect is noticed during the guarantee period, it should be rectified by the contractor within seven days of issuing of notice by the Engineer-in- Charge and, if not attended to, the same shall be got done through other agency at the risk and cost of the contractor and recovery shall be effected from the amount retained towards guarantee. In any case, the contractor and the specialist agency, during the guarantee period, shall inspect and examine the treatment once in every year and make good any defect observed and confirm the same in writing. The security deposit can be released in full, if bank guarantee of equivalent amount valid for the duration of guarantee period, is produced and deposited with the society.
GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

The Agreement made this…………day of Two thousand and ……………….. Between……………………son of……………………of…………………….(hereinafter called the Guarantor of the one part) and the Pondicherry Medical College Society (hereinafter called Society on the other part).

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the Contract) dated……………… and made between the GUARANTOR OF THE ONE part and the Society on the other part, whereby the Contractor, inter alia, undertook to render the buildings and structures in the said contract recited completely water and leak-proof.

AND WHEREAS GUARANTOR agreed to give a guarantee to the effect that the said structure will remain water and leak-proof for ten years from the date of giving of water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak-proof and the minimum life of such water proofing treatment shall be ten years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose:

(a) misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof;
(b) alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts;
(c) the decision of the Engineer-in-Charge with regard to cause of leakage shall be final

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found render the building water proof to the satisfaction of the Engineer-in-Charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-Charge calling upon him to rectify the defects failing which the work shall be got done by the society by some other contractor at the GUARANTOR’S cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if Guarantor fails to execute the water proofing or commits breach thereunder then the Guarantor will indemnify the society and his successors against all loss, damage, cost, expenses or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Society the decision of the Engineer-in-Charge will be final and binding on the parties.
IN WITNESS WHEREOF these present have been executed by the Obligor ………………… and by ………………………and for and on behalf of the Pondicherry Medical College Society on the day, month and year first above written.

SIGNED, SEALED and delivered by OBLIGOR in the presence of
1. 
2. 

SIGNED for and on behalf of Pondicherry Medical College Society by……………..in the presence of
1. 
2. 
FORM OF PERFORMANCE SECURITY (GUARANTEE)

BANK GUARANTEE BOND

In consideration of the Indira Gandhi Medical College and Research Institute (hereinafter called “The Society”) having offered to accept the terms and conditions of the proposed agreement between ………………… and …………………….

(hereinafter called “The said Contractor(s)”) for the work …………………

(hereinafter called “the said agreement”) having agreed to production of a irrevocable Bank Guarantee for ₹. ………………… (Rupees …………………………… only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

We, ………………………………… (hereinafter referred to as “the Bank”)

(Indicate the name of the Bank)

hereby undertake to pay to the Society an amount not exceeding ₹. ………………… (Rupees …………………………… only) on demand by the Society.

2. We, ………………… do hereby undertake to pay the amounts due and payable (Indicate the name of the Bank)

under this guarantee without any demure, merely on a demand from the Society stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding ₹. ………………… (Rupees …………………………… only)

3. We, the said bank further undertake to pay to the Society any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We, …………………. further agree that the guarantee herein contained shall (Indicate the name of the bank)

remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Society under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-Charge on behalf of the society certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.
5. We, ........................................ further agree with the Society that the (indicate the name of the bank) Society shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Society against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the Society or any indulgence by the Society to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. We ......................... lastly undertake not to revoke this guarantee except (indicate the name of the bank) with the previous consent of the Society in writing.

8. This guarantee shall be valid upto .................. unless extended on demand by Society. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs..............(Rupees .....................only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the........... day of ........... for..................(indicate the name of the Bank)
AFFIDAVIT

(to be taken by the contractor on a non-judicial stamp paper before a First Class Magistrate)

I/We have submitted Bank Guarantee for the work ........................................
(name of work) in letter No............................. dated from..............................
(name of bank) to the Executive Engineer-I .........................................................
towards performance guarantee of security deposit in cash. This Bank guarantee expires
on ........................................ I/We undertake to keep the validity of the Bank guarantee
in tact by getting it extended from time to time at my/our own initiative upto a period of
........................................ months after the recorded date of completion of the work or
as directed by the Engineer-in-charge.

I/We also indemnify the society against any losses arising out of encashment of
the Bank Guarantee, if any.

Note: This Affidavit is to be given by the executant before a First Class Magistrate.