



सी.एस.आई.आर.-राष्ट्रीय वनस्पति अनुसंधान संस्थान
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद)
राणा प्रताप मार्ग, लखनऊ-२२६००९

C.S.I.R-NATIONAL BOTANICAL RESEARCH INSTITUTE
(Council of Scientific & Industrial Research)
Rana Pratap Marg, Lucknow-226001

कम्पोजिट ई-निविदा
COMPOSITE E-TENDER

Name of work: **Refurbishment of non working Tissue Culture Facility for Floriculture Mission at NBRI, Lucknow.**

COVER-I
TECHNICAL BID

निविदा संख्या: 1/WKS/30/21-GI
Tender No. : 1/WKS/30/21-GI

C.S.I.R-NATIONAL BOTANICAL RESEARCH INSTITUTE

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Rana Pratap Marg, Lucknow-226001

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Note: 1. Tenderer should confirm that they have received/downloaded all the above papers.

Name of bidder:

Address:

Telephone No.

Mobile No.

E-mail ID:

Signature of tenderer

PART - A

सी.एस.आई.आर.-राष्ट्रीय वनस्पति अनुसंधान संस्थान

(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद)

राणा प्रताप मार्ग, लखनऊ-२२६००१

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NOTICE INVITING E-TENDER

1. Online Item rates e-tender in two bid systems are invited through the e-tendering portal "<https://etenders.gov.in>" for the composite work "**Refurbishment of non working Tissue Culture Facility for Floriculture Mission at NBRI, Lucknow.**" from reputed registered contractors in appropriate class of CPWD, MES, Railways, Post & Telegraph, State PWD's, Semi government organizations and/or from those who have successfully carried out ***similar works** for CSIR or its laboratories, govt. or Semi government organization. The tenderers should have successfully completed at least three similar composite works amounting to 40 % (**Rs.39.53 lakhs**) or two similar composite works of 50 % (**Rs.49.41 lakhs**) or at least one composite work amounting to 80 % (**Rs.79.05 lakhs**) value of the estimated cost or above in a single contract during the last **Seven** years. The contractor should have valid 'A' class electrical license (either firm should have 'A' class electrical license or submit a undertaking for engaging 'A' class license holder agency for execution of electrical work and will provide their details and copy of 'A' class electrical license with the tender). The contractors may apply with proof of fulfilling the above conditions along with copies of PAN, GST registration number, satisfactory completion of similar works certificates.

*Similar work shall mean the contractor having experience of composite RCC framed building construction works of required amounts.

Sl No	Tender No.	Estimated Cost (Rs.)	Duration of Contract	Earnest Money Deposit (Rs.)	Publish date	Bid document download / Sale Start date	Bid submission end date	Bid opening date
1	1/WKS/30/21-GI	98,80,450/- (including GST & labour Cess)	120 days	1,97,609/-	04.01.22	04.01.22 from 06:30 PM	17.01.22 Up to 03:00 P.M.	18.01.22 at 03:30 P.M.

2. The estimated cost of work is Rs.98,80,450/- (Rs. 65,75,232/- (civil work) + Rs. 22,66,418/- (Electrical work) + Rs.10,38,800/- (Air-conditioning work)), which is based for scheduled items on CPWD DSR-2021 for civil work, DSR-2018 for electrical work and market rate for Air-conditioning work and non-scheduled items.

3. The last date of online submission of bid is 17.01.2022 up to 03:00 P.M. *

4. The date of opening of Technical Bid is 18.01.2022 at 03:30 P.M.

5. The time for carrying out the work is 120 days.

6. The tender document cost of **Rs.1,180/- (1000.00 +180.00 GST @ 18%)** (Non refundable) shall be deposited through RTGS/NEFT or through bank challan in NBRI bank account or in the form of DD/ Pay order/ Banker's cheque in favor of Director, CSIR-NBRI, Lucknow. The scanned copy UTR No./bank challan/ DD/ Pay order/ Banker's cheque of tender document cost deposited in CSIR-NBRI Lucknow account, shall be uploaded with the technical bid.
7. EMD of Rs 1,97,609/- shall be deposited in the form of Demand Draft/Pay Order/Banker's cheque drawn in favor of Director, CSIR-NBRI, Lucknow or UTR receipt of EMD deposited through RTGS/NEFT in NBRI, Lucknow bank account. The scanned copy of EMD deposited in the form of Demand Draft/Pay Order/Banker's cheque/ UTR receipt of RTGS/NEFT shall be scanned and uploaded along with Technical Bid to the e-tendering website by the bidder within period of bid submission. The original tender fee & EMD receipts in specified mode should be dropped in tender box placed in the Room of Security Officer at main gate or by post, latest by the last date & time of submission of bid, failing which their offer shall be rejected and CSIR-NBRI will not be responsible. It may be noted that even after opening of price bid, the credential submitted found to be false / forged, the offer submitted shall be rejected outrightly.
8. Online bids shall be available on **e-portal: <http://etenders.gov.in>** between 04.01.2022 to 17.01.2022 up to 03:00 P.M. and bidder shall upload their bids within given dates and time in two separate cover, **Cover-1 as Technical Bid** and **Cover-2 as Price Bid** with the following documents:

A. Technical Bid (Cover-1)

The bidders shall upload the Technical Bid in Cover-1 along with the scanned copy of following documents (pdf. only) to e-tendering website within the period of bid submission and advised to take in to account corrigendum/Instructions/Information's published if any in respect of tender document before/submitting their bids.

- I. Bank Challan/Demand Draft/Pay Order/Banker's Cheque or UTR receipt of RTGS/NEFT against deposit of Tender document cost.
- II. Demand Draft/Pay Order/Banker's Cheque or UTR receipt of RTGS/NEFT against deposit of EMD.
- III. Self certified copy of Enlistment order of contractor in appropriate class in composite category.
- IV. Certificate of registration under GST.
- V. Self certified copy of work completion/experience certificates of required value of composite works done.
- VI. PAN Card.
- VII. Valid 'A' class Electrical License issued by Department Of Electrical Safety, Govt. of U.P (either firm should have 'A' class electrical license or submit a undertaking for engaging 'A' class license holder agency for execution of electrical work and will provide their details and copy of 'A' class electrical license).
- VIII. Partnership deed, in case of partnership firm.
- IX. The entire tender document of Technical Bid must be uploaded duly signed and stamped by the bidder.
- X. Scanned copy of signed & stamped Undertaking by the Bidder for unconditional acceptance of conditions and any other papers ask for in the bidding documents.

Note: The acceptance / rejection of their bids will be intimated to the bidders/ firms through e-tendering portal.

B. Price Bid (Cover-2)

The price bid shall be uploaded with following document in Cover-2:

- I. All rates shall be quoted in the format provided (xls. Only) and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the file name. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

Note: The bid documents received in hard copy will stand rejected.

9. Tender Liable for Rejection.

Tender is liable for outright rejection if on opening it is found that —

- (a) The Tenderer has not strictly followed the procedure laid down for submission of tender.
- (b) If the tender is CONDITIONAL.
- (c) If the Tenderer has quoted his offer anywhere else other than specified place provided online on e-portal.
- (d) The Tenderer has not uploaded the documents or Failed to fill the prescribed format.
- (e) Any other ground as decided by the TOC in view of deviation from Tender Document.

10. The Original eligibility documents shall have to be produced by the bidders, if required by the department.
11. The enlistment of the contractors should be valid on the last date of submission of bids.
12. Agreement shall be drawn with successful bidders on prescribed form.
13. After submission of bid the contractor can resubmit revised bid any number of times but before last date and time of submission of bid as notified.
14. Online bids submitted by intending bidders shall be opened only of those bidders who have deposited the tender fee & EMD in said manner and have uploaded the required scanned copies of self certified documents along with Technical Bid. The bank details for depositing tender fee and EMD in the account of **“National Botanical Research Institute, Lucknow is SBI NBRI Lucknow Branch, Saving Bank Account No. 30267652846, IFSC code: SBIN0010173, MICR code: 226002051.”**
15. Rates quoted by contractor shall be for complete work including labour cess, GST and all other taxes & duties etc. nothing extra shall be payable other than quoted rates.
16. The tenderer shall not be permitted to tender for works in the concerned unit of CSIR in which a relative is posted in the grade between Sr. Controller of Administration and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or subsequently employed by him and who relatives are as mentioned above.

NOTE: A person shall be deemed to be a relative of another if , and only if , (a) they are members of Hindu undivided family ; or (b) they are husband and wife; or (c) the one is related to the other in the following manner; Father, Mother (including step mother), Son (including step son) , Father’s father, Son’s son , Son’s wife , Son’s daughter, Son’s daughter’s husband , Daughter’s husband, Daughter’s son, Daughter’s son’s wife, Daughter’s daughter, Daughter’s Daughter’s husband Brother (including step brother), Brother’s wife, Sister (including step sister), sister’s husband.
17. Tender submitted shall remain valid for 90 days from the date of opening for the purpose of acceptance and award of work, validity beyond 90 days from the date of opening shall be by mutual consent.

18. The tenderer shall quote rates both in figures and words; He shall also workout the amount for each item of work and writes in both figures and words. On check if there are differences between the rates quoted by the tenderer in words and in figures or in the amount worked out by him the following procedure shall be followed:-
 - (a) When there is difference between the rates in figures and in words, the rates which correspond to the amounts worked out by the tenderer shall be taken as correct.
 - (b) When the amount of an item is not worked out by the tenderer or it does not correspond with the rate written either in figures or in words, the rate quoted by the tenderer in words shall be taken as correct.
 - (c) When the rate quoted by the tenderer in figures and in words tallies but the amount is not worked out correctly the rate quoted by the tenderer shall be taken as correct and not the amount.
19. The tenderer should see drawings and in case of doubt obtain required particulars, which may in any way influence his tender from the Engineer as no claim whatsoever will be entertained for any alleged ignorance thereof.
20. Before tendering, the tenderer shall inspect the site to fully acquaint himself about the condition in regard to accessibility of site, nature and extend of ground working condition of site and locality including stacking of materials, installations tools and plants (T&P) etc., conditions affecting accommodations and movement of labour and type of maintenance work etc. required for the satisfactory execution of the work contract. No claim whatsoever on such account shall be entertained by the Employer in any circumstances.
21. Earnest Money will be forfeited if the contractor fails to commence the work as per the letter of award.
22. Except writing rates and amount, the tenderer should not write any conditions or make any changes, additions, alterations and modifications in the printed form of tenders. Tenderers who are desirous to offer rebate, the same should be brought out separately in the covering letter and submitted along with the tender. Conditional rebate shall not be considered.
23. Some of the provisions of General Conditions of Contract are given below. Interpretation however shall be as given in the General Conditions of Contract.
 - i) DEFECTS LIABILITY PERIOD: Twelve months from the date of completion as certified by the Employer.
 - ii) MINIMUM VALUE OF WORK FOR THE INTERMEDIATE CERTIFICATE: Rs. 30.0 Lakh for civil work and Rs 10.0 Lakh for Electrical work. Intermediate certificate for a lesser amount can be admitted for payment at the discretion of the Engineer in-charge of respective works.
 - iii) SECURITY DEPOSIT: A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of the work. In addition, the contractor shall be required to deposit an amount equal to 5% of the tendered value of the contract as Performance Security within the period prescribed for commencement of work in the letter of award issued to him.
 - iv) COMPENSATION: Contractor shall pay as compensation an amount equal to one percent or such smaller amount as the Employer (whose decision in writing shall be final) may decide on the amount of the estimated cost of the whole work as shown in the agreement for every week that the work remains un-commenced or unfinished or due quantity of the work remains incomplete after the proper dates. Compensation to be paid shall not exceed ten percent of the estimated cost of the work as shown in the agreement.

24. All material, labour, tools and plants required for this work will be procured / arranged by the contractor at his own cost. The department will not supply any materials which are to be used in the work.
25. The tenderer shall have to ensure to quote rates in rate column of Bill of Quantity. In case of leaving the rate blank of any item of work, the same shall be taken as Zero "0". And the total responsibility in this regard will be of the tenderer. The bidder is bound to execute the full quantity of this item of work at **"zero payment"** for the work done against this item of work.
26. The Employer does not bind himself to accept the lowest or any tender and reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rates quoted.
27. If it is found that the tender is not submitted in proper manner or contains too many corrections or absurd rates of item, it would be open for the department to take suitable action.
28. All fittings, fixtures and material to be used in this work shall be got approved by the Engineer in charge before arrangement.
29. The latest CPWD specifications shall be followed, if any discrepancy in regard to specification etc. is noticed.
30. All safety measures to be followed during execution of work. For any misshaping / incident etc. the contractor alone will be solely responsible.
31. Director, CSIR-NBRI, Lucknow reserves the right to reject any or all the tenders without assigning any reason thereof.

Signature of tenderer

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Appendix

1.	Defect liability period	Twelve Months from the date of Virtual completion as certified by the engineer-in-Charge.
2.	Time of completion	120 Days Only
3.	Minimum value of work interim certificate	25.00 Lakhs. Or less Bill at the discretion of the Engineer - In-Charge.
4.	Earnest Money	Rs.1,97,603/- (Rs. One Lakh Ninety Seven Thousand Six Hundred Three Only)
5.	Performance Security	5% of the tendered value of work to be deposited by successful tenders before execution of agreement.
6.	Liquidated damages for insufficient progress of work (Clause 23-B)	1% per week of the total cost of the work awarded subject to a maximum of 10% of the gross value of the work done or cost of work awarded whichever is more.
7.	Subsequent retention	Sufficient sum to make up 10% of the value of work done inclusive of earnest money subject to maximum of 5% of the tendered value are gross value of work done, whichever is more.
8.	Time of submission of final bill by the contractor.	Three months from the date of virtual completion.

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Particulars of Contractor

Name of Contractor : Mr.....
Firm of Contractor : M/s.....
Telephone No. (office) :
Office Address :
Residential Address :
As the firm limited : Yes.....Use/No.....

Give name and address of partners:-

Name

Address

- a)
b)
c)
d)

Partnership deed : Please enclose with tender
Name of Bankers : M/s.....
Power of attorney : Enclosed attested copy/original power of attorney in case of firm.

State: Name and address of person holding power of attorney:

Name :
Address :
Registration particulars :
a) Registered with :
b) Registered No. :
c) Financial limit upto :
which registered :
d) Trade for which registration :

Signature of Contractor

ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT MADE AT _____ this _____ day of _____ BETWEEN the Council of Scientific & Industrial Research, New Delhi, a society registered under the Societies Registrations Act 1860 (Hereinafter referred to as the Employer, which expression shall include its successor and assignees and authorized officers of the Society) of the one part and _____ trading in the name and style of _____ (herein after referred to as the contractor(s) which expression shall include his/ their respective heirs, executors, administrators and permitted assignees) of the other part.

WHEREAS the Employers is desirous of getting the work ofdone and has caused drawings, schedule of Quantities and Specifications describing the work to be prepared.

AND Whereas the said specifications and the schedule of quantities and other documents have been signed by on behalf of the parties.

Now it is hereby agreed and declared by and between the parties hereto as follows:

1. In consideration of the payments to be made to them as hereinafter provided the Contractor shall upon and subject to the conditions hereinafter contained executed and complete, the work at the rates specified in the attached schedule of quantities and with such materials as are provided for and in accordance in all respect with specifications, designs, drawings and instructions in writing. Time for carrying out the work will be.....and the date of commencement be reckoned from the (**tenth day** of issue of award letter)
2. The Employer shall pay to the Contractors such sum as shall become payable hereunder at the items and in the manner specified in the said conditions.
3. This agreement contains the following documents in addition to pages of Articles of Agreement.
 - (i) General Conditions of Contract Page No _____ to _____.
 - (ii) Special Conditions Page No _____ to _____.
 - (iii) Additional Conditions Page No _____ to _____ .
 - (iv) Indenture for Secured Advance and format of Performance Guarantee Page No _____ to _____.
 - (v) Original tender document along with the covering letter of the firm dated Page No: 1 to _____.
 - (vi) _____ .
 - (vii) _____ .

(viii) _____ .

In witness whereof the parties hereto have set their respective hands the day and year in above written.

Signed by, for and on behalf of Employers _____

In the presence of

(1) _____

(2) _____.

Signed by the said contractor

In the presence of

(1) _____

(2) _____.

GENERAL CONDITIONS OF CONTRACT

1. Interpretation

(a) In constructing these conditions, the Specifications, the Schedule of Quantities, Tender, Special Conditions and Agreement, the following words shall have the meaning herein assigned to them except where the subject or context otherwise requires.

(b) This contract shall comprise of the Articles of Agreement, General Conditions of Contract, Special Conditions. Additional Special Conditions, the Schedule of Quantities, Specifications, letter of acceptance of tender and other documents mentioned in the contents sheet attached hereto and including these to which only reference is made herein.

Work or Works: Shall mean all work or works defined in schedule of quantities, specification and such other work or works as the contractor may be entrusted with for carrying out under this contract.

Employer: Shall mean Director-General, CSIR or any officer authorized by Director-General for the purpose. .

Engineer: Shall mean the Engineer designated by the Employer to superintend and perform other duties as indicated in the contract.

Contractor(s): Shall mean the individual or Firm or Company, whether incorporated or not. Undertaking the work and shall include the legal personal representative or such individual or the persons composing such Firm or Company or the successors of such Firm or Company and the permitted assignees of such individual or Firm or Firms or Company.

Site: Shall mean the site of the contract works including any buildings and erections thereon and any other land adjoining thereto (inclusive) as aforesaid allotted by the Owner/Employer or Engineer/ PMC for the contractor's use.

Compensation: Shall mean all sum payable by way of compensation under any of the conditions shall be considered as reasonable compensation without reference to the actual loss or damage sustained and whether or not any damage sustained and whether or not any damage shall have been sustained.

Words imputing persons include firms and corporations; Words imputing the singular only also include the plural and vice versa where the context so required.

The headings are given to the clauses for convenience and they will not limit the meaning or scope of the clauses in any way.

2. Drawings and Specifications

The Contractor shall execute whole and every part of the work in the most substantial and workmanlike manner both as regards material and otherwise in every respect in accordance with the specifications. The contractor shall also confirm exactly and faithfully to the design, drawings and instructions given in the respect of the work by the Engineer. The contractor shall be furnished free of charge one- copy of such specifications and all such designs, drawings and instructions as are not included in the printed publications.

3. Contractor to Provide Everything Necessary

- (a) The contractor shall provide at his own cost all materials (except such materials, if any as may in accordance with the contract be supplied by the Employer) plants, tools, appliance, implements, ladders, scaffolding, temporary works, etc. requisite or proper for the execution of the work whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or which may be necessary for the purpose of satisfying or complying to the requirements of Engineer, as to any manner as to which under these conditions he is entitled to be satisfied together with carriage therefore to and from the work. The bidder shall have to make his own arrangement for making approach roads for movement of vehicles, men & materials, plants & equipment, tools & tackles etc. to & from the work site. The contractor shall also supply without charge the requisite number of persons with means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer **at the expense of the contractor** and the expenses may be deducted from any money due to the contractor under the contract and *I* or from his Security Deposit.
- (b) The contractor shall provide himself with requisite quantity and quality of water for carrying out the works at his own, if, however piped water is supplied by the Employer, the contractor shall pay for the water at **one percent of** the total of the work done except on Electrical Work, Air-conditioning work and Furniture work. The contractor shall make own arrangement for water connection and laying of further pipelines from the source of supply of the Employer. It should be clearly understood that the Employer does not guarantee to maintain uninterrupted supply of water and it will be incumbent on the part of the contractor to make alternative arrangement for water at his own cost in the event of any temporary breakdown in the water mains so that the progress of work is not held up

for want of water. No claim as damages or refund of water charges will be entertained on account of such breakdowns. However, if the contractor is permitted to make his own arrangement to draw water from a well, hand-pump, or natural river or pond of the Employer, no charges will be made for the water drawn from the same, but the contractor will make good any damage done to the installations and ensure that the quality of water used in the work is conforming to BIS codes and provide for any treatment at his own cost.

- (c) The contractor shall be allowed to construct temporary wells in Employer's land for taking water for construction purpose only after he has permission of the Employer in writing. No charges shall be recovered from the contractor on this account but the contractor shall be required to provide necessary safety arrangement to avoid any accident or damage to adjacent buildings, roads and service lines. He shall be responsible for any accident or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.
- (d) The Employer on no account shall be responsible for the expenses incurred by the contractor for hired ground or water obtained for elsewhere.
- (e) Subject to availability the Employer may **supply power** at only one point from where the Contractor shall make his own arrangement for distribution including provision of electric meters, switches, fuses etc. at his own cost. These shall be in the custody of the Employer. If there is any hindrance caused to other works the contractor shall reroute or remove such temporary lines without any extra cost. Such temporary lines shall be removed after the completion of work. The cost of power consumed by the contractor shall be payable to the employer at rates fixed by the Employer, which would be deducted from the running account bills. However the Employer does not guarantee the supply of power and no compensation for any failure or short supply of power shall be entertained.

3 A. Sufficiency of Tender

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of the tender the works and the rates and the prices quoted in the schedule of items, which rates and the prices shall, except as otherwise provided, cover all his obligation under the contract and all matters and things necessary for the proper completion and maintenance of the works.

4. Authorities, Notice & Patents

- (a) The contractor shall confirm to any regulations and bye-laws of any

corporation and of any electricity supply company and authorities with whose systems the structure is proposed to be connected, and shall before making any variations from the drawing and specifications that may be necessitated for so conforming by giving written notice to the Engineer specifying the **variations proposed** to be made, the reasons for making it and apply for instructions thereon. If the compliance with this clause involves any extra work not included in this contract, he shall specify these items of work and the allowance of extra payment required on their account.

- (b) The contractor shall give all notices required by the said regulations or bye-laws to be given to any Authority and pay to such Authority or to any public office all fees that may be chargeable in respect of the works and lodge the receipts with the bill to the Engineer for reimbursement.

5. Rates to include all Taxes

- (a) Rates quoted by the contractor shall include GST, sales tax / VAT (except service tax), purchase tax, turnover tax, labour cess, duties, octroi, toll tax, realties and all other taxes in respect of this contract and the Employer shall not entertain any claim whatsoever in this respect. However, in respect of service tax, same shall be paid by the contractor to the concerned department on demand and it will be reimbursed to him by the department after satisfying that it has been actually and genuinely paid by the contractor. The applicable and eligible service tax shall be reimbursed preferably 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order. Tendered rates are inclusive of all taxes levies payable under the respective statutes. However pursuant to the Constitution (Forty Sixth Amendment) Act; 1982 if any further tax or levy is imposed by Statutes, after the date of receipt of tenders and the contractor there upon necessarily and properly pays such taxes/levies the contractor shall be reimbursed the amount as per the rules on producing proof of payment so made provided such payments, if any, is not in the opinion of the Employer (whose decision shall be final and binding) attributable to delay in execution of work within the control of the contractor.
- (b) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the Employer and further shall furnish such other information and documents as the Employer may require.
- (c) The contractor shall within a period of thirty days of imposition of any **further tax** or levy pursuant to the Constitution (Forty Sixth Amendment) Act, 1982 give a written notice thereof to the Employer that the same is

given pursuant to this condition together with all necessary information relating thereto.

6. Materials

- (a) If the specifications of schedule of items provide for the use of any material to be supplied by the Employer's stores or if it is required that the contractor shall use certain stores to be provided by the Employer as shown in the schedule of materials hereto annexed, the contractor shall be bound to procure and shall be supplied such materials and stores as are from time to time required to be used by him for the purpose of the contract only and value of the materials so supplied at the rates specified in the said schedule of materials and of the quantities incorporated in the work may be set off or deducted from any sums then due, or thereafter to become due to the contractor under the contract or otherwise or against or from the Security deposit. All materials so supplied to the contractor by the Employer shall remain the absolute property of the Employer and the contractor shall be the trustee of the materials so supplied procured and the said materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open for inspection by the Engineer or Employer. The contractor shall bear all incidental charges for cartage, storage and safe custody of all materials and against damage due to 'dampness, rain, sun, fires and theft and be fully responsible for their storage and maintenance. Any such material unused and in perfectly good condition in the opinion of the Employer at the time of the completion of work or termination of the contractor or earlier shall be returned to the Employer at a place directed by the Engineer at contractor's cost and at rates stipulated in the said schedule but in case the Employer decides not to take back the materials the contractor shall have no claim for compensation on account of any such materials supplied to him as aforesaid being unused by him or for any wastage or damage to any such materials.
- (b) If for any reason there is delay or non-supply of material as shown in the schedule, the contractor shall procure the same and complete the work in time after due intimation and approval of the Employer. The difference in price (between his procurement price and price shown in the schedule) shall be paid to the contractor. However, in case approval of the Employer is not given, only suitable extension of time would be considered and no other claim of compensation/damages shall be payable by the Employer.
- (c) After completion of the work or on determination/termination of the contract, the theoretical quantity of cement to be used in work shall be calculated on the basis of statement showing quantity of cement to be used in different items of work provided in current Schedule for the purpose printed by CPWD. In case any item is executed for which the

standard contents for the consumption of cement are not available in the above mentioned statement or cannot be derived from this statement, the same shall be calculated on the basis of standard formula to be laid down by the Engineer. Over this theoretical quantity of cement shall be allowed a variation up to 3% plus/minus for works estimated cost of which as put to tender is not more than Rs.10 lakhs and up to 2% plus/minus for works estimated cost of which as put to tender is more than Rs. 10 lakhs. The difference in the quantity actually issued to the contractor and the theoretical quantity including authorized variation if not returned by the contractor, shall be recovered at twice the issue rate, without prejudice to the provision of other conditions regarding return of material governing the contract. In the event of its being discovered that the quantity of cement which is less than the quantity ascertained as herein before provided (allowing variation on minus side as stipulated above) the cost of quantity of cement not so used, shall be recovered from the contractor on the basis of stipulated issue rates and cartage to site.

- (d) The provisions of foregoing sub-clause shall apply Mutatis-Mutandis in the case of steel reinforcement structural steel sections (each diameter/section or category shall be considered separately) except that the theoretical quantity of the steel be taken as the quantity required as per design or as authorized by the Engineer, including lappages, plus 3% wastage due to cutting into pieces. Over this theoretical quantity 2% plus/minus shall be allowed as variation due to wastage.
- (e) The provision of foregoing sub-clause shall apply Mutatis-Mutandis in the case of cables; (other than under-ground cables) wires, conduits/GI pipes, GI/MS sheets used in various items of work shall be calculated on the basis of measurements recorded in the measurement books for the purpose of payment and for assessing the Consumption of materials used in the works. Over this quantity a variation of 5% plus shall be allowed for wastage of materials during execution in case of cables (other than under-ground cables), wires, conduits GI pipes, and 10% plus in case of GI/MS Sheets.
- (f) The provisions made above are without prejudice to the right of the Employer to take action against the contractor under the conditions of the contract for not doing the work according to the prescribed specifications.
- (g) In case of easy availability of approved quality of cement and steel in the open market it will be Employer's discretion to make these items as contractor's supply.

7. Testing of Materials

The contractor shall provide assistance, instruments, materials, labour and any other arrangement normally required for testing, checking of materials and workmanship as stipulated in the specifications and by statutory authority at his own cost. The Employer has the right to appoint the testing authorities. The contractor shall pay for the cost of test samples, its packing, transportation including testing fees. Failings his so doing, the same shall be provided by the Engineer at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract and/or from the Security Deposit or proceeds thereof or of a sufficient portion thereof.

8. Contractor's Engineers/Foreman & Workman

- (a) The contractor shall give all necessary personals superintendence during the execution of the (work and as long thereafter as the Engineer may consider necessary until the expiration of the Defects Liability Period. The contractor shall employ competent Site-Engineer/Foreman as per CPWD norms and as approved by the Engineer whose qualification must conform to the requirement specified by the Engineer who shall be constantly in attendance of the work while the men are at work. Any directions, explanations, instructions or notices given by the Engineer to such Site-Engineer or Foreman or any other authorized agent shall be held to be given to the contractor. (refer Annexure III)
- (b) The contractor shall on the request of the Engineer immediately dismiss from the work any person employed thereon who may in the opinion of the Engineer be unsuitable or incompetent or who may in opinion of the Employer misconduct himself.

9. Access

- (a)The Engineer, and the Employer or its representatives shall at all reasonable time have free access to the works and/or workshops, factories or other places the materials are being prepared or constructed for the contract and also to any place where the materials are lying or from which they are being obtained and the contractor shall give every facility to them for inspection. Except the representatives of statutory authorities and those mentioned above no other person shall be allowed on the works at any time without the permission of the Engineer.
- (b)If any work is to be done at a place other than the site of works, contractor shall obtain written permission of the Engineer.

10. Variation & Price for Variation

- (a)The Engineer with the approval of the Employer shall have powers to make any alterations/ omissions/additions and/or substitutions from the originals specifications, drawings, designs and written instructions of such alterations,

omissions, additions, substitutions shall not invalidate the contract and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work. The rates for such altered, additional or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order.

- (b) If the rates for the altered, additional, or substituted work are specified in the contract for the work, the contractor is bound to carry out the altered, additional, or substituted work at the same rates as are specified in the contract for the work.
- (c) If the rates for the altered, additional, or substituted work are specified in the contract for the work, the contractor is bound to carry out the altered, additional, or substituted work at the same rates as are specified in the contract for the work.
- (d) If the rates for the altered, additional, or substituted work cannot be determined in the manner specified in sub-clause (b) and (c) above, then the contractor shall, with 10 working days from the date of receipt of the order to carry out the work through notice in writing; inform the Engineer of the rate which it is his intention to charge for such class of work, supported by analysis of the rate claimed which shall be based on actual cost of work plus 10% as contractor's profit and overheads except in case of departmental materials for which contractors profit and over-heads shall be 2.5%. When such notice has been given, the Engineer with the consent of the Employer may agree to such a rate but if the Engineer does not agree to the contractor's rate the Engineer may cancel his order to carry out such class of work and arrange to carry out in such a manner as he may consider advisable.
- (e) Under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates of items falling under the clause.
- (f) "Deviation limits"

Building work	30%
Maintenance/emergency works	50%
Foundation works	100%
Services works	30%

11. Faulty Materials, Workmanship & Defects After Completion

- (a) The Engineer shall have powers to require the removal from the site of all materials and work which in his opinion are not in accordance with specifications and in case of default, the Engineers shall be at liberty to employ other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials to be substituted thereof and in case of default the Engineer may cause the same to be supplied and all costs which may attend such removal

and/or substitution are to be borne by the contractor.

- (b) If it shall appear to the Engineer or to the Employer based on audit/technical examination that any work has been executed with unsound, imperfect, or unskillful workmanship or with materials of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract, any defects, shrinkage or other faults which may appear within the defects liability period of 12 months from the date of completion arising in the opinion of the Engineer, the contractor shall on demand in writing which shall be made within 12 months of the completion of the work from the Engineer specifying the work, materials, articles defects or other faults complained of notwithstanding that the same may have been passed, certified and paid for, forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own cost. In case of any such failures, the Engineers may rectify or remove or re-execute the work or remove and replace with others, the material or articles complained of as the case may be at the risk and cost in all respects of the contractor.
- (c) In lieu of rectifying the work not done in accordance with the contract, the Employer may, allow such work to remain, and in that case make allowance for the difference in value, together with such further reduction as in his opinion may be reasonable.
- (d) Provided always that nothing in this clause shall relieve the contractor from his liability to execute the works in all respects in accordance with the terms and conditions of this contract, or from his liability to make good all defects.

12. Works to Be Open for Inspection

- (a) All work under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer and the contractor shall at all times, during the usual working hours, and at all other times at which reasonable notice of the intentions of the Engineer to visit the works shall have been given to the contractor, either himself be present to receive order and instruction or have a responsible agent duly accredited in writing present for that purpose.
- (b) The contractor shall give not less than seven days notice in writing to the Engineer before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up and place beyond the reach of measurement, any work without the consent in writing of the Engineer and the Engineer shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurement without such notice having been or the Engineer's

consent obtained the same shall be uncovered at the contractors expense or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

13. Assignment or Sub-Letting

- (a) The contract shall not be assigned or sublet without the written approval of the Employer. And if the contractor shall assign or sub-let his contract or attempt to do so or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so or if any bribe, gratuity or gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor or any of his servants or agents to any person in the employment of the Employer in any way relating to his office or employment, or if any such employee or person shall become in any way directly or indirectly interested in the contract, the Employer shall have the power to adopt any of the courses specified under clause-23 as may be best suited to the interest of the Employer and in the event of any of the courses being adopted the consequences specified in the said clause shall ensure.
- (b) Where the contractor is a partnership firm, the approval in writing of the Employer shall be obtained before any changes in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained the contractor enters into any partnership agreement hereunder the partnership firm would have the right to carry out the work hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned or sublet in contravention of clause 13 (a) and the same action may be taken and the same consequences shall ensue as provided in the said clause 13 (a).

14. Indemnifying Against Damages to Persons, Property & Statutes

The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards day and night, speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused due to negligence on his part. No hindrance shall be caused to traffic during the execution of work.

- (a) The contractor shall be responsible for all injury to persons, animals or things, and for all damage, whether such injury or damage arises from carelessness or accident in any way connected therewith. This clause shall be held to include inter-alia any damage due to causes as aforesaid to work, building (whether immediately adjacent or otherwise) and to roads, streets, foot paths, bridges or ways as well as all damage caused to the buildings and works forming the subject of this contract by inclemency of weather. The contractor indemnifies the Employer and holds him harmless in respect of all expenses arising from such

injury or damage as aforesaid and also in respect of any award of compensation or damage consequent upon such claim including legal costs.

- (b) The contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver the whole of the contracted works complete and perfect in every respect and so as to make good and otherwise satisfy all claims for damage as aforesaid to the property of third parties.
- (c) The contractor also indemnifies the Employer against all claims which may be made upon the Employer for acts during the currency of this contract by any employee or representative of an employee of the contractor or any sub-contractors, employed by him, for any injury to or loss of life, of such employees, or for compensation payable under any law for the time being in force to any workmen or to the representative of any deceased or incapacitated workmen.
- (d) The contractor also indemnifies the Employer against all claims which may be made upon the Employer for acts during the currency of this contract by the Central/State Government or local Municipal authorities for the noncompliance of any laws, regulations, rules pertaining to wages act, safety act in force and any amendments thereof in respect of all labour and apprentices directly or indirectly employed in the work under this contract.
- (e) The Employer shall be at liberty and is hereby empowered to deduct the amount of any damages, compensation costs, charges and/or expenses arising or accruing from or in respect of any such claim and/or damages as aforesaid from any sum or sums due or to become due to the contractor or security deposit.
- (f) The contractor shall indemnify the employer against any action, claim or proceedings relating to infringement or sue of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against the Employer in respect of any such matters as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise therefrom. Provided that the contractor shall not be liable to indemnify the Employer if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the said Employer or his authorised representative.

15. Lien in Respect of Claim in Other Contracts

- (a) Any sum of money due and payable to the contractor including the security deposit under the contract may be withheld or retained by way of lien by the Employer or Government or any other contracting person or persons against any claim of the Employer or Government or such other persons in respect of

payment of a sum of money arising out of or under any other contract made by the contractor with the Employer or Government or with such other persons.

- (b) It is agreed term of the contract that the sum of money so withheld or retained under this clause by the Employer will be kept withheld or retained as such by the Employer or till his claim arising out of in the same contract or any other contract is either mutually settled or determined by the Arbitrator if the contract is governed by arbitration clause or by the competent court as the case may be, and that the contractor shall have no claim for interest or damages whatsoever on this account or any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

16. Withholding & Lien in Respect of Sums Claimed

- (a) Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the Employer shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security deposit if any deposited by the contractor and for the purpose aforesaid, the Employer shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security deposit being insufficient to cover the claimed amount or amounts or if no security deposit has been taken from the contractor, the Employer shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which at any time thereafter may become payable to the contract under the same or any other contract, with the, Employer or any contracting person pending finalization or adjudication of any such claim.

It is an agreed terms of the contract that the sum of money so withheld or retained under the lien referred above, by the Employer will be kept withheld or retained as such by the Employer till the claim arising out of or under the contract is determined by the Arbitrator (if the contract is governed by the arbitration clause) or by the competent court as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company the Employer shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or In part from any sum payable to any Partner/Limited company as the case may be, whether in his individual capacity or otherwise.

- (b) The Employer shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract etc., to be made after payment of the final bill and if as a

result of such audit and technical examination any sum is found to have been over paid in respect of any work done by the contractor under the contract or any work claimed by him to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over payment and it shall be lawful for the Employer to recover the same from him in the manner prescribed in sub-clause (a) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under-payment shall be duly paid by the Employer to the contractor.

Provided that the Employer shall not be entitled to recover any sum over-paid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Employer on the one hand, and the contractor on the other hand under any term of contract permitting payment for work after assessment by the Employer.

17. In-Case of Death of Contractor

Without prejudice to any of the rights of remedies under this contract, if the contractor dies, the Employer shall have the option of terminating the contract without compensation to the contractor.

18. Sub -Contractors

The Employer reserves the right to use the premises and any portion of the site for the execution of any work not included in the contract. The contractor is to afford all reasonable facilities to all sub-contractor, specialists, merchants, tradesmen and others who may at any time be appointed by the Employer for executing any work or supplying any goods relating to the construction, servicing, equipping or furnishing of the work under this contract.

19. Compliance to Labour Laws & Apprentice Act

The contractor shall comply with an the provisions of the Minimum Wages Act, 1948, Contract Labour (Regulation and Abolition) Act, 1970, and rules and orders framed there under and other labour laws affecting contract labour and Apprentice Act, 1961 and the rules and orders framed there under that may be in force or brought into force from time to time.

Contractor shall obtain a valid license under Contract Labour (R&A) Act 1970 and Contract Labour (R&A) Central Rules 1971 before commencing work and which should be valid till the completion.

20. Compensation for Delay

- (a) The time for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be deemed to be essence for the contract on the part of the contractor. The work shall throughout the stipulated period of the contract be proceeded with all due diligence and the contractor shall pay as compensation an amount equal to ONE PER CENT OR such smaller amount as the employer (whose decision in writing shall be final) may decide on the amount of the whole work as shown in the agreement, for every week that the work remains un-commenced or unfinished after the proper dates.
- (b) And further to ensure good progress during the execution of the work, the contractor shall be bound in all cases in which the time allowed for any work exceeds one month (say for special jobs) to complete one-eighth of the whole of the work before one-fourth of the whole time allowed under the contract has elapsed: three-fourths of the work before three-fourths of such time has elapsed. However for special jobs if a time schedule has been submitted by the contractor and the same has been accepted by the Employer, the contractor shall comply with the said time schedule. In the event of the contractor failing to comply with this condition he shall be liable to pay as compensation an amount equal to one per cent or such smaller amount as the Employer (whose decision in writing shall be final) may decides on the said cost of the work for every week that the due quantity of work remains incomplete. Provided that the entire compensation to be paid under the provisions of this clause shall not exceed ten percent on the estimated cost of the work as shown in the tender.

21. Damage to Works in Consequence of Hostilities or War-Like Operation

- (a) The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and others things connected therewith shall be at the risks of the contractor until the work has been delivered to the Employer and a certificate from him to that effect obtained. In the event of the works or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or war-like operations, the contractor shall, when ordered in writing by the Employer, remove any debris from the site, collect and properly stored or remove from store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking, removal of serviceable materials and for the reconstruction of all works ordered by the Employer such payment being addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or

destroyed but not already measured and paid for the damage/destruction suffered and for restoring the material at the rates based on the analysis of rates tendered for in accordance with the provision of this agreement. The certificate of the Employers regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on the contractor.

- (b) Provided always that no compensation shall be payable for any loss in consequence of hostilities or war-like operations (i) unless the contractor had taken all such precautions against Air Raid as are deemed necessary by the A. R. P. Officers or the Employer, (ii) for any materials etc., not on the site of the work or for any tools and plant, machinery, scaffolding, temporary buildings and other things not intended for the work.
- (c) In the event on the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Employer.

22. Extension of Time

- (a) If the contractor shall desire an extension of time for the completion of the work on the grounds of his having been unavoidably hindered in its execution or any other ground he shall apply in writing to the Employer within thirty days of the date of hindrance on account of which he desires extension-as aforesaid, and the Employer shall, if in his opinion (which shall be final) reasonable grounds shown therefore, authorize such extension of time if any, which may, in his opinion, be necessary or proper.
- (b) In the event, the value of work exceeds the value of the Bill of Quantities owing to variations, the contractor shall be entitled to ask for extension of time in proportion to the increased value of work.

23. Suspension of Work by Contractor

- (a) The Employer may without prejudice to his right against the contractor in respect of any delay or inferior workmanship or otherwise or to any claims for damages in respect of any breaches of the contract and without prejudice to any rights or remedies under any of the provisions of this contract or otherwise and whether the date for completion has elapsed by notice absolutely determine the contract in any of the following cases:
 - (i) If the contractor having been given by the Engineer to rectify, reconstruct or replace any defective work or that the work is being performed in any inefficient' or otherwise improper or unworkman-like manner shall omit to comply with the requirements of such notice for a period of seven days thereafter or if the contractor shall delay or suspend the execution of the

- work so that in the judgment of the Employer (which shall be final and bindings) he will be unable to ensure completion of the work by the date for completion or he has already failed to complete the work by that date.
- (ii) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditors shall be appointed or if circumstances shall arise which entitle the court of creditor to appoint a receiver or a manager or which entitle the court to make a winding up of order.
 - (iii) If the contractor commits breach of any of the terms and conditions of this contract.
 - (iv) If the contractor commits any acts mentioned in clause-13th thereof.
- (b) When the contractor has made himself liable for action under any of the cases aforesaid, the Employer shall have the following powers:
- (i) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the Employer shall be conclusive evidence). Upon such determination or recession the security deposit of the contractor shall be liable to be forfeited and shall be absolutely at the disposal of the Employer.
 - (ii) The Engineer may employ labour paid by the Employer and to supply materials to carry out the work or any part of the work debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by tile Engineer shall be final and conclusive against the contractor) and crediting him with the value of the work done in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Engineer as to the value of the work done shall be final and conclusive against the contractor, provided always that action under the sub-clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the Employer are less than amount payable to the contractor at his agreement rates, the difference should not be paid to the contractor.
 - (iii) After giving notice to the contractor to measure up the work of the contractor and to take such part thereof as shall be unexecuted out of his hands and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the amount of which exceed the certificate in writing of the Engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by the Employer under this contract or any other account whatsoever or from his security deposit.
 - (iv) In the event anyone or more of the above courses being adopted by the Employer the contractor shall have no claim to compensation for any loss

sustained by him by reason of his having purchased or procured any materials or entered into any engagement or made any advances on account or with view to the execution of the work or the performance of the contract. And in case action is taken under any of the provisions aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer has shall certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

24.Secured Advance

The contractor on signing an indenture in the form specified by the Employer during the progress of the execution of the work may be paid if agreed by the Employer up to 75 percent of the estimated value which shall take into account the market value and contractor tendered rates for the finished item of any material which in the opinion of the Engineer is likely to be incorporated in the work within next three months, are non-perishable and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and protected against damage by weather or other causes, which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this clause are incorporated in the worth the amount of such advance shall be deducted from the next payment made under any of the clause of clauses of this contract.

25. Certificates & Payments

- (a) No payments shall be made for a work estimated to cost Rupees ten thousand or less till the whole of the work shall have been completed and certificate of completion given. But in the case of a work estimated to cost more than Rupees ten thousand, the contractor shall, on submitting the bill entitled to receive a monthly payment proportionate to the part of the work executed and to the satisfaction of the Engineer, whose certificate of the" sum so payable shall be final and conclusive against the contractor, provided the amount of work done is as per the value of intermediate certificate or for a lesser amount at the discretion of the Engineer as mentioned in the NIT. All such intermediate payments shall be regarded as payments by way of advance against the/final payment only and not as payments for work actually done and completed and shall not preclude the requiring of bad, unsound, imperfect or unskilled work to be removed and taken away and reconstructed, or recreated or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim nor shall it conclude, determine, or affect in any way

the powers of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or in any other way affect the contract. The final bill shall be submitted by the contractor within two months of the date fixed for the completion of work or of the date of the certificate of completion furnished by the Employer and payments shall be made within three months if the value of the completed works is upto Rupees Two lakhs and in six months if the same exceeds Rupees Two lakhs of the submission of such bill. If there shall be any dispute about any item or items of the work then the undisputed item or items only shall be paid within the said period of three months or six months as the case may be.

- (b) Whenever there is likely to be delay in recording detailed measurements for making a running payment, advance payment without detailed measurements for work done worked out at 75 percent of the tendered rates for assessed quantities may be made in running account bills by the Employer on the basis of a certificate from the Engineer. The advance payments so allowed shall be adjusted in the subsequent running bills by taking detailed measurements thereof. Final payments shall be made only on the basis of detailed measurements.
- (c) A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer on printed forms obtainable from the Engineer's office. The Engineer shall take or cause to be taken the requisite measurements for the purpose of having the same verified and the claim, as far as admissible, adjusted as far as possible, before the expiry of ten days from the presentation of the bills. If the contractor does not submit the bill within the time fixed as aforesaid the Engineer may take action within seven days of the date fixed as aforesaid, an authorized representative to measure up the said work in the presence of the contractor whose signature to the measurement will be sufficient warrant and the Engineer may prepare the bill from such measurements.
- (d) Before taking any measurement of any work the Engineer or his authorized representative deputed by him shall give reasonable notice to the contractors. If the contractor fails to attend after such notice or fails to sign or to record the difference within a week from the date of measurement in the manner required by the Engineer then in any such event the measurements taken by the Engineer or by the authorized representative deputed by him as the case may be, shall be final binding on the contractor and the contractor shall have no right to dispute the same.
- (e) The charges in the bills shall always be entered at the rates specified in the agreement or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the agreement at the determined as per-clause-10. However in case of partially executed items of

work, the Employer at his discretion allows proportionate rates for such items of work as determined by the Engineer whose certificate of the sum so payable shall be final and conclusive against the contractor.

26. Security Deposit

- (a) A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with the sum already deposited as earnest money, will amount to security deposit of the 5% tender value of the work. In addition, the contractor shall be required to deposit an amount equal to 5% of the tendered value of the contract as Performance Security within the period prescribed for commencement of work in the letter of award issued to him.
- (b) In case a fixed deposit receipt of any scheduled bank is furnished by the contractor to the Employer as part of the Security deposit and the bank goes into liquidation or for any reason is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Employer to make good the deficit of such sum from the running bill as mentioned above. Such deductions will be held by the Employer by way of security deposit, provided always that the Employer for this purpose shall be entitled to recover the said percentage of the amount from each running bill till the balance of the amount of security deposits is realised. All compensation or the other sums of money payable by the contractor under the terms of this contract may be deducted from the security deposit or from the interest arising therefrom or from any sums which may be due to or may become due to the contractor by the Employer on any account whatsoever and in the event of his security deposit being reduced reason of any account whatsoever and in the event of his security deposit being reduced reason of any such deductions aforesaid, the contractor shall within ten days make good in cash or further fixed deposit receipt pledged in favour of the Employer. The security deposit shall be collected from the running bills of the contractor at the rates mentioned above and the earnest money if deposited at the time of tenders will be treated as part of the security deposit.
- (c) The contractor if he so desires may furnish fixed deposit receipt in advance towards the security deposit. Such fixed deposit receipt shall be of a minimum value of Rs. 25,000/- each. (The last such fixed deposit receipt could be of a lower value on the basis of the amount) In case any recovery is effected from running account bills, such recovered amount shall not be replaced with fixed deposit receipt. It is in the contractor's interest to keep a ward about the adequacy of the fixed deposit receipt submitted.
- (d) No partial refund of security deposit shall be made during the defect liability period. In case the final bill is not settled within stipulated period for reasons

beyond control and the Employer is satisfied that the security deposit is not required for adjustment of Employer dues or whatsoever dues either in this or any other contract then this security deposit either in full or in part could be refunded at the sole discretion of the Employer. However, release of security deposit would be only after written clearance of Labour Officer regarding no dues or claims is received.

- (v) In case of termination of contract, this security deposit shall be forfeited and amount necessary to makeup this amount shall be recovered from money due to the contractor under this contract, or any Contract with the Employer.

27. Completion Certificate

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Employer and within ten days of the receipt of such notice the-Engineer shall inspect the work. If there is no defect in the work the Employer shall furnish the contractor with certificate of completion otherwise a certificate of completion indicating defects shall be issued but the work shall not, considered to be completed until the contractor shall have removed from the premises on which the work shall be executed all the scaffolding, surplus material, rubbish, and all the huts and sanitary arrangements required for his work, people on the site in connection with execution of the works as shall have been erected or constructed by the contractor and cleaned of the dirt, splashes, droppings of finishing items from all wood work, doors, windows, walls, floors or other parts of any building, in upon or about which the work is to be executed or of which he may have had possession for the purpose of the execution thereof. If the contractor shall fail to comply with requirements of this clause on or before the fixed for the completion of the work, the Employer may at the risk and cost of the contractor take action as he may think fit and the contractor shall have no claim except for any sum actually realized by the sale thereof.

28. Escalation

- (a) If the prices of materials not being supplied by the Employer and/or wages of labour required for execution of the works increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contractor shall accordingly be varied, subject to the condition that compensation for escalation in prices shall be available only for the work done during the stipulated period of the contract including such period for which the contract is validly extended under the provisions of Clause-22 of General Conditions of Contract without levy of compensation under Clause-20 of General Conditions of Contract and also subject to the condition that no such compensation shall be payable for a work and also which the stipulated period of completion is **eighteen months or less**. Such compensation for escalation in the prices of materials and labour when due shall be worked out

based on the following provisions.

- (i) The base date for working out such escalation shall be the last date on which the tenders were stipulated to be received.
- (ii) The cost of work on which escalation will be payable shall be reckoned as 85% of the cost of the work as per the bills, running or final, and from this amount the value or material supplied by the Employer and proposed to be recovered in the particular bill shall be deducted before the amount of compensation for escalation is worked out. In case of materials bought to site for which secured advance is included in the bill full value of such materials as assessed by the Engineer in charge (and not the reduced amount for which secured advance has been paid) shall be included in the cost of work done for operation of this clause. Similarly when such materials are incorporated in the work, the secured advance is deducted from the bill full assessed value of the materials originally considered for operation of this clause shall be deducted from the cost of work shown in the bill running or final. Further the cost of work shall not include any work for which payment is made for any item at prevailing market rates.
- (iii) The compensation for escalation for materials & labour shall be worked out as per the formula given below:

VM	=	$W \times A/100 \times (MI-MI_0)/MI_0$.
VM	=	Variation in material cost Le. increase or decrease in the amount in rupees to be paid or recovered
W	=	Cost of work done worked out as indicated in sub para (ii) above.
A	=	Component of materials expressed as percent of the total value of work and is predetermined as 75
MI	=	Index numbers of Wholesale Prices in India for all commodities published by the Reserve Bank of India for the period under reckoning
MI ₀	=	Index numbers of Wholesale prices in India for all commodities published by the Reserve Bank of India and valid on the stipulated date of receipt of tenders
VL	=	$W \times B/100 \times (LI-LI_0)/LI_0$
VL	=	Variation in labour cost, that is, increase or decrease in the amount in rupees to be paid or recovered
W	=	Value of work done, worked out as indicated in sub para (ii) above.
B	=	Component of labour expressed as percent of the total value of work and is predetermined as 25
L1	=	All India consumer price index numbers for workers published by the Reserve Bank of India for the period under reckoning as for the period under consideration
L1 ₀	=	All India consumer price index numbers for industrial workers published by the Reserve Bank of India and valid on the stipulated

date of receipt of tenders.

- (b) The following principle shall be followed while working out indices mentioned in sub para (iii) above.
 - (i) The compensation for escalation shall be worked out at yearly intervals and shall be with respect to the cost of work done during the six calendar months of the said work. The first such payment shall be made at the end of the six months after the month (excluding) in which the tenders was accepted and thereafter at six monthly intervals. At the time of completion of work, the last period for payment might become less than six months, depending on the actual date of completion
 - (ii) The index (MI or LI) relevant to any six months for which such compensation is paid shall be the arithmetical average of the indices relevant to the six calendar months. If the period upto date of completion after the six months covered by the last such installment of payment, is less than six months the index MI or LI shall be the average of indices for the months falling within that period.
 - (iii) The base index (MI or LI) shall be the relating to the months in which the tender was stipulated to be received.
- (c) In the event the price of materials and/or wages of labour required for execution' of the work decreases there shall be downward adjustment of the cost of work so that the price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard formula herein before stated under this clause shall mutatis mutandis apply, provided that no such adjustment for the decrease in the prices of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is six months or less.
- (d) Employer shall have the discretion to permit the IEEMA (Indian Electrical & Electronics Manufacturers' Association) Clause for escalation in case of specialized works e.g. lifts and electrical and mechanical installations etc. where the price variation is not similar to building works.

29. Arbitration

- a. Except where otherwise provided in the contract, all questions and dispute relating to the interpretation of the specification, designs, drawings and instructions, herein before mentioned, and as to the quality or workmanship or materials used in the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the

contract, designs, specifications, estimates, instructions, orders on these conditions or otherwise concerning the works, or the execution or failure to execute the same, whether arising during the progress of the work or after the completion or abandonment thereof, shall be referred to **Delhi International Arbitration Centre (DIAC), Delhi High Court, New Delhi.**

- (b) It is also a term of the contract that the party invoking arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute.
- (c) It is also a term of the contract that if the contractor does not make any demand for arbitration in respect of any claim in writing within 90 days of receiving the intimation from the Employer that the bill is ready for payment, the claim of the contractor will be deemed to have been waived and absolutely barred and the Employer shall be discharged and released of all liabilities under the contract in respect of these claims.
- (d) Subject as aforesaid the provisions of the Arbitration and conciliation Act, 1996, or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration reference under this clause.

30. Dismantled Material:

The contractor shall treat all material obtained during dismantling of a structure, services sub systems/ installations, excavation of the site for a work etc., as employer's property and such material shall be disposed of to the best advantage of the Employer according to the instructions issued in writing by the Engineer.

31. Performance Guarantee

Performance Guarantee may be taken from the contractor before the award of work, by the officer authorized to award the contract, if and where considered necessary, to ensure that a part or whole of the contract is completed by the contractor. In case of non-performance this guarantee could be encashed.

ANNEXURE-I

I. SPECIAL CONDITIONS

1. These special conditions are meant to amplify the general specifications and general conditions of contract.
2. Work shall be done as per latest CPWD specifications.

In case of any discrepancy, the order of precedence in interpretation shall be as under:

- (i) Schedule of quantities
- (ii) Drawings
- (iii) Additional conditions
- (iv) General conditions of contract
- (v) Special conditions
- (vi) Additional Technical Specifications
- (vii) CPWD latest Civil and Electrical Specifications
- (viii) IS Codes
- (ix) International Codes
- (x) Best Engineering Practice.

3. Steel

Supply of the approved quality of steel/ reinforcement steel to use in the execution of work shall be in the scope of contractor.

4. Cement

Supply of the approved quality of cement to use in the execution of work shall be in the scope of contractor.

5. Unless otherwise provided in the schedule of quantities the rates tendered by the contractor shall apply for all heights, lifts, leads and depths of the work and nothing extra shall be payable on this account.
6. The surplus excavated earth which is beyond the requirement of the Employer's work may be allowed by the Employer to be disposed off by the contractor on his own or sell the surplus excavated earth to private parties at his discretion but nothing extra will be paid for the carriage or disposal of surplus earth if the same is not required for any other work of the Employer.

ANNEXURE-II

II. ADDITIONAL CONDITIONS

1. The structural and architectural drawings shall at all time 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 drawings relating to the relevant item the former shall prevail unless and otherwise given in writing by the Engineer.
2. No payment shall be made to the contractor for any damage caused by rain snowfall, floods or any other natural cause whatsoever during the execution of work. The damage to work will be made good by the contractor at his own cost and no claim on this account shall be entertained.
3. All materials used shall be as per specifications and ISI marked wherever applicable. ISI marking referred relates to latest BIS code as published by Bureau of Indian Standards up to 30 days before the date of opening the tender.
4. The contractor shall give a performance test of the entire installation(s) as per standard specifications and/or as directed by the Engineer and will also submit test certificates as are required by Municipal, Electrical authority or any other authority. Nothing extra shall be payable for the same other than the fees paid to such authorities which shall be reimbursed on production of receipts.

ANNEXURE-III

III. Contractor's Site Superintendence

Staff to be employed by contractor on works: The contractor shall employ the following technical staff during execution of works:

a) For building and road works

- i) One Graduate Engineer, when the tendered cost of work exceeds Rs. 10 lakhs
- ii) One qualified Diploma holder (overseer) with experience not less than 3 years when the tendered cost of work exceeds Rs. 5 lakhs but is less than Rs.10 lakhs.
- iii) One qualified Diploma holder when the tendered cost of work is more than RS.2 lakhs but less than Rs.5 lakhs.

b) For sanitary and water supply works

One qualified diploma holder with experience of not less than 5 years, out of which one year should be in sanitary and water supply works when the tendered cost of work is more than Rs.50,000.

c) For electrical works

- i) One qualified Graduate Engineer possessing Degree in Electrical Engineering from recognized university with an experience of not less than 3 years or a Diploma holder in Electrical Engineering with an experience of not less than 7 years when the tendered cost of the work is not less than RS.1.5 lakhs.
- ii) One Graduate Electrical Engineer with two years experience or a Diploma holder in Electrical Engineering with experience of not less than 3 years when the tendered cost of the work is more than RS.75,000 but less than Rs. 1.5 lakhs.
- iii) One Diploma holder in Electrical Engineering with experience of not less than 3 years when tendered cost of work is more than Rs. 37,000, but less than Rs.75,000.
- iv) One licensed Supervisor with experience of not less than 3 years when the tendered cost of work is more than Rs.7,500 and less than Rs.37,000.

d) In case the contractor fails to employ the technical staff as aforesaid, he shall be liable to pay reasonable amount not exceeding the amount shown below for each month of default. These recoveries are subject to modification, from time to time by IITR/ CSIR based on CPWD.

- i) In case when a Graduate Engineer is to be employed Rs. 3,000/-
- ii) In case when a qualified Diploma holder is required to be employed Rs. 1,500/-
- iii) In case when a technical Supervisor is required to be employed Rs. 750/-

ANNEXURE - IV

IV. ADDITIONAL CONDITIONS FOR CEMENT AND STEEL

CONDITIONS FOR CEMENT

1. The contractor shall procure 33 grade (conforming to IS:269) or 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 tones per annum or more, such as ACC, L & T, J.P. Rewa, Vikram, Shri Cement, Birla Jute and Cement Corporation of India etc. as approved by Ministry of Industry, Government of India, and holding license to use ISI certification mark for their product whose name shall be got approved from 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 taken by the Engineer-in-charge and got tested in accordance with provisions of relevant BIS code. In case test results indicate that the cement arranged by contractor does not conform to the relevant BIS codes, the same shall 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.
2. The cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer-in-charge.
3. The cement godown of the capacity to store a minimum 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 provisions shall be made to the door of the cement godown. 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 godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-charge at any time.
4. The contractor shall supply free of charge the cement required for testing. The cost of tests shall be borne by the contractor.
5. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in Clause 6 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in Clause 6 of the contract and shall be governed by conditions laid therein.
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.

CONDITIONS FOR STEEL

1. The contractor shall procure steel reinforcement bars conforming to relevant BIS codes from reputed manufacturers as approved by the Engineer-in-charge. 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 own cost within a week's time from written orders from the Engineer-in-charge to do so.
2. The steel reinforcement shall be brought to the site in bulk supply of 10 tonnes or more as decided by the Engineer-in-charge.
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.
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:

Size of bar	For consignment below 100 tonnes	For consignment over 100 tonnes
Under 10 mm dia	One sample for each 25 tonnes or part thereof.	One sample for each 40 tonnes or part thereof.
10 mm to 16 mm dia	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof.
Over 16 mm dia	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof.

5. The contractor shall supply free of charge the steel required for testing. The cost of tests shall be borne by the contractor.
6. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 6 of the contract. The theoretical consumption of steel shall be worked out as per procedure in clause 6 of the contract and shall be governed by conditions laid therein.
7. Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.

ANNEXURE –V (PROFORMA)

V. INDENTURE FOR SECURED ADVANCE

This indenture made the _____ day of _____ 20____ between _____ (hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his heirs, executors, administrators and permitted assignees) of the one part and Council of Scientific & Industrial Research, New Delhi, a Society registered under the Societies Registration Act 1860 (hereinafter called the Employer which expression shall include its successors and assignees and authorized officer of the Society) of the other part.

WHEREAS by an agreement dated _____ (hereinafter called the said agreement) the contractor has agreed AND WHEREAS the contractor has applied to the Employer that he may be allowed advances on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the construction of such of the works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges) AND WHEREAS the Employer has agreed to advance to the contractor the sum of Rs. _____ (Rupees _____) on the security of materials the quantities and other particulars of which are detailed in accounts of secured advances attached to the running account Bill for the said works signed by the contract on _____ and the Employer has reserved to himself the options of making any further advance or advances on the security of other materials brought by the contractor to the site of the said works. Now THIS INDENTURE WITNESSES that in pursuance of the said agreement and in consideration of the sum of Rs. _____ on or before the execution of these presents paid to the contractor by the Employer (the receipt whereof the contractor both hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid the contractor both hereby convince and agree with the Employer and declare as follows:

1. That the said sum of Rs. _____ advanced by the Employer to the contractor as aforesaid and all or any further sum or sums advanced as aforesaid shall be employed by the contractor in or towards expediting the execution of the said works and for no other purpose whatsoever.
2. That the materials detailed in the said account of secured advance which have been offered to and accepted by the Employer as security are absolutely the contractor's own property and free from encumbrance of any kind and the contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the contractor indemnifies the Employer against all claims to any materials in respect of which an advance has been made to him as aforesaid.

3. That the materials detailed in the said account of secured advances and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereinafter called the said materials) shall be used by the contractor solely in the execution of the said works in accordance with the directions of the Engineer and in the term of the said agreement.
4. That the contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protections against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the contractor's custody and on his own responsibility and shall at all times be open to inspection by the Employer or any officer authorized by him. In the event of the said materials or any part thereof being stolen destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the contractor will forthwith replace the same with other materials of like quality or repair and make good the same as required by the Engineer.
5. That the said materials shall not on any account be removed from the site of the said works except with the written permission of the Employer or any officer authorized by him on that behalf.
6. That the advances shall be repayable in full when or before the contractor receives payments from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. However if any intermediate payments are made to the contractor on account of work done then on the occasion of each such payment the Employer will be at liberty to make a recovery from the contractor's bill for such payment by deducting there from the value of the said materials then actually used in the construction and in respect of which recovery has not been made previously the value for this purpose being determined in respect of each description of materials at the rates at which the amount of the advances made these presents were calculated.
7. That if the contractor shall at any time make any default in the performance or observance in any respect of any of the terms or provisions of the said agreement or of these presents the total amount of the advance or advances that may still owing to the Employer shall immediately on the happening of such default be repayable by the contractor to the Employer together with interest thereon at twelve percent per annum from the date or respective dates or such advance or advances to the date of repayment and with all costs charges, damages and expenses incurred by the Employer in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the contractor and the contractor hereby covenants and agrees with the Employer to repay and pay the same respectively to him accordingly.

8. That the contractor hereby charges all the said materials with the repayment to the Employer of the said sum of Rs._____ and any further sum or sums advanced as aforesaid and all costs charges, damages and expenses payable under these presents PROVIDED ALWAYS AND it is hereby agreed and declared that notwithstanding anything in, the said agreement and without prejudice to the powers contained therein if and whenever the convenient for payment and repayment herein before contained shall become enforceable and the money owing shall not be paid in accordance therewith the Employer may at any time thereafter adopt all or any of the following courses as he may deem best:-

(a) Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the contractor in accordance with the provisions in that behalf contained in the said agreement debiting the contractor with the actual cost of effecting such completion and amount due in respect of advances under these presents and crediting the contractor with the value of work done as if he had carried out in accordance with the said agreement and at the rates thereby provided. If the balance is against the contractor he is to pay same to the Employer on demand.

(b) Removed and sell by public action the seized material or any part thereof and out of the money arising from the sale retain all the sums aforesaid repayable or payable to the Employer under these presents and pay over the surplus (if any) to the contractor.

(c) Deduct all or any part of the money owing out of the security deposit or any sum due to the contractor under the said agreement.

9. That except in the event of such default on the part of the contractor as aforesaid interest on the said advance shall not be payable.

In witness whereof the said _____ and _____ by the order and under the direction of the Employer have hereunto set their respective hands the day and year first above written.

Signed sealed and delivered

By the said contractor: _____

In the presence of

Signature: _____

Name: _____

Address: _____

Signed by _____

By the order and direction

Of the Employer: _____

In the presence of

Signature: _____

Name: _____

Address: _____

Signed by _____

ANNEXURE - VI (PROFORMA)

VI. PERFORMANCE GUARANTEE

To

Council of Scientific and Industrial Research

In consideration of Council of Scientific and Industrial Research (hereinafter) called "The Council" having awarded to MIs

_____ a Company registered under the Companies Act 1956 (hereinafter) called the Contractor, a contract for (hereinafter) called the said contract under the terms and conditions of an Agreement dated-made between the Council and the 'Contractor hereinafter called the said agreement and Council agreed to accept the Council and the Contractor as herein provided for Rs.. _____ (Rupees _____ only) from a Scheduled Bank towards due performance of the contract by the Contractor as per the terms and conditions of the contract on the condition that the Bank on demand from the Council and without demur pay to the Council the aforesaid amount.

2. We, _____ Bank Ltd., (hereinafter referred to as the 'bank' do hereby undertake to pay to the Council an amount not exceeding Rs. _____ against any loss or damage caused to or suffered or would be caused to or suffered by the Council by reasons of any breach or breaches of any of the terms. of condition of the said agreement by the said contractor.

3. We, _____ Bank Ltd., do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from the Council by stating the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Council for reasons of any breach by the said contractor(s) of any of the terms conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. 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 Rs. _____.

4. This guarantee shall come into force immediately and continue in force and remain valid till six months after the completion of all works under the said contract which according to the terms of the said contract, should be six months from the probable date of completion viz., the _____ day of _____. If, however, the period of the completion of the works under

the said contract is for any reason extended and upon such extension if the Contractor fails, before the terms of this guarantee expires, to furnish a fresh or renewed guarantee for the extended period, the Bank shall pay to Council the said sum of Rs.

5. This guarantee shall not be affected by any change in the constitution of the Bank or of the Contractor.

6. Notwithstanding anything hereinafter contained, the liability of the Bank under this guarantee is restricted to Rs. _____
(Rupees _____ only) and the
guarantee shall remain in force till _____ day of
20____ unless claim or demand under this guarantee is presented to the Bank within
six months from that date all the rights of Council u'1der this guarantee shall be
forfeited and the Bank shall be released and discharged from all obligations hereunder.

PART - B

Technical Specifications for Civil Work

ALL MATERIALS SHALL BE OF QUALITY AS SPECIFIED IN TENDER DOCUMENT AND APPROVED BY THE ENGINEER IN-CHARGE OF CIVIL WORK:

1. Coarse sand and fine sand shall be conforming to grading zones III and IV, respectively.
2. Stone aggregate shall be crushed stone grit of specific grade as approved by the Engineer In-charge.
3. All materials, fixture and fittings, required for this work, which are available with ISI certificate mark, will be of that quality, even if not specified in the item.
5. The contractor shall have to arrange sample of granite stone for approval before using at site. The granite stone shall be of natural uniform colour and approved quality.
6. All anodised aluminium fittings & fixtures of doors and windows available in market have to be powder coated in similar quality, colour & shade of aluminium section used in work. **Nothing shall be paid extra for powder coating of door/ window fittings & fixtures, therefore bidders are requested to quote their rates accordingly.**
7. Vitrified tiles shall be as per specification as per IS: 15622 - 2017 or other relevant latest IS code as applicable. The make and sample will be approved by the Engineer Incharge before commencement.
8. Building rubbish received from dismantling work shall be removed from site and to be disposed off at an authorised municipal dumping yard.
9. Contractor is bound to make sufficient arrangements for safety of his men power & material and also to make a dust free safety barrier around the work site to avoid any accident. Nothing shall be paid extra for making these essential arrangements.
10. Best quality of bricks as mentioned in schedule of quantity shall be used in construction work. The contractor has to submit sample of bricks for approval, before arranging the bricks in bulk quantity.
11. For cement and steel specification please refer enclosed annexure-IV.

Signature of tenderer

LIST OF APPROVED MAKES OF ITEMS FOR CIVIL WORK

Sl No.	Description of material	Make and Manufacture's Name
1	Vitrified Tiles	Johnson/Kajaria Somany or eqvt. approved make
2	Flush door shutter	Centuary/Archid/Greenply or eqvt. approved make.
3	Glass	Modi Guard/Saint Gobin/Asahi or eqvt. approved. make
4	CP Lock	Link/Godrej/Harrison or eqvt. approved.
5	Hydraulic Door Closer	Godrej/Dorma/Ozone or eqvt. approved make
6	Commercial board/Ply 19mm	Centuary/Archid/Greenply or eqvt. approved make.
7	Aluminium Section	Jindal/Hindalco or eqvt. approved make.
8	Patch fitting and hardware for frame less door	Ozone/Dorma/Cuba or eqvt. approved make.
9	Sanitary Items: wash basin, pedestal & urinal	Perryware/Cera/Hindware or eqvt. approved make.
10	Sanitary CP Fitting	Plumber/Jaguar/ Hindware/ Kubix /Kohler or eqvt. approved make.
11	GI Pipe-	Jindal/Tata/QST or eqvt. approved make
12	Sink-	Perryware/Cera/Hindware or eqvt. approved make.
13	PVC water tank	Syntax/Supreem/Tuff /Polyplast or eqvt. approved make
14	Putty	JK/Birla or eqvt. approved make.
15	Paint Items-	Asian/Berger/Nerolac or eqvt. approved make
16	Other items	Approved make/as per latest CPWD specification/BOQ.

Signature of tenderer

PART - C

SCOPE OF WORK (Electrical work)

Under the scope of electrical work, contractor shall carry out complete electrical work as per as per technical specifications given in tender document in compliance to relevant IS code and specifications and in accordance with this contract and with directions and to the satisfaction of Employer. The contract shall include labour, materials, tools & plants required for execution of work and for testing the electrical installation after completion and transportation up to the site etc which may be required for full execution and completion of the work. Contractor shall dismantle and remove all the existing old electrical wiring components, electrical fittings and fixtures, switch boards, MS conduit & DBs etc from the building and after the deduction/adjustment of quoted buy back cost of salvage value of all these dismantled electrical fixtures and fittings from contractor's running bill, these dismantled electrical items, fittings and fixtures shall be handed over to the contractor on as is where is basis and contractor shall remove all the dismantled items from the building to outside the campus.

The electrical work shall be carried out as per technical specifications given in tender document and in case of any discrepancy, work shall be executed as per CPWD general specification for Electrical Works Part-1 (Internal) 2013, Part-IV Substation and Indian Standards amended up to date and as per direction of Engineer In-charge electrical work. The additional specifications shall be read with above and in case of any variations, specifications given along with tender shall apply.

The contractor shall provide everything necessary for the proper execution of the works according to intent and meaning of the specifications and drawings taken together. Under scope of this work, complete new electrical wiring with copper wire for light point/fan point/exhaust fan point/call bell point/mirror light points are to be done in the PVC conduit/ PVC Trunking /Cable management system with modular switches. Wiring for power points, internet points, telephone points shall be to be done in PVC trunking/cable management system with modular switch, sockets, modular telephone & internet jacks which shall be suitable for fitting in the PVC trunking /cable management system given in tender document. If there are varying or conflicting provisions made in tender document forming part of the contract, in that case Employer shall be sole deciding authority with regard to intention and interpretation of the document and his decision in this respect shall be final and binding.

The contractor shall test the complete electrical installation as CPWD guidelines after the wiring work has been completed.

Signature of Contractor

Technical Specifications for Electrical wiring work

1. General

- Technical specifications in this section cover the internal wiring installation comprising of :
- Wiring for lights/fan points/ fan points/exhaust fan points in concealed/surface PVC conduit/ UPVC trunking/raceway with modular boxes, switch and sockets as required.
- Wiring for telephone/internet points in concealed/recess PVC conduit/ UPVC trunking/ raceways with modular telephone and internet boxes.
- Wiring for submain wiring in concealed /surface PVC conduit/UPVC trunking/raceway.
- Power point wiring in concealed /surface PVC conduit/UPVC trunking/raceway with modular boxes, modular switch/socket suitable for fixing in UPVC trunking/raceway as required.

2. Standards and Codes

The following IS specifications and codes of practice will apply to the equipments and the work covered under the scope of this contract. In addition the relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended upto date shall also apply.

BIS certified equipments shall be used as part of the contract. Necessary test certificates in support of the certification shall be submitted prior to supply of the the equipment.

It is to be noted that updated and current Standards shall be applicable irrespective of those listed below:

650/1100 V, AC grade PVC insulated wires	IS 694:1990
Switch socket outlets	IS 4615:1990
Code of practice for electrical wiring installations	IS 732:1989
PVC conduit pipe and accessories	IS 2509-1973 & IS 3419-1989

3. Wiring System

Wiring shall be done only by looping system. Phase/live conductors shall be looped at the switch box. For point wiring, neutral wire/ earth wire looping for the first point shall be done in the switch box and neutral/earth looping of subsequent points will be made from point outlets.

In wiring no joints in wiring will be permitted anywhere except in switch box or point out lets, where jointing of wires will be allowed with use of suitable connector. Wiring throughout the installation shall be such that there is no break in the neutral wire except in the form of linked switchgear. Switches controlling lights, fans, socket outlets shall be connected only in the phase wire of the final sub circuit. At all bolted terminals brass flat washers of large area and steel spring washers shall be used. Only experienced and valid license holder wireman shall be employed to do wiring work.

Following colour coding shall be followed in wiring work:

PHASE	: Red/yellow/Blue (three phase wiring)
Live (phase)	: Red (single phase wiring)
Neutral	: Black
Earth	: Green

Termination of circuit into switchboard:

Circuit will consist of phase/neutral/earth wire. Circuit will terminate in a switch board i.e. the first tapping point, where from point wiring starts. The switch board will have phase, neutral and earth terminal connector blocks to receive phase/neutral/earth wire.

Above mentioned colour code of conductors shall be maintained for the entire wiring installation.

4. PVC Trunking cable management system/raceways/wire ways

- (i) Adaptable pvc trunking shall be of uniform thickness throughout its length and shall be of factory finish of approved make. Trunking will be used for laying power point wires, data and telephone

cables to run parallel in two different compartments with partition/separator. Trunking cover shall be clip on type with double grooving and trunking shall be with pill off cover for protection against dust. Pill off cover shall be removed only after painting of walls. The trunking should be equipped with rail on its surface on which clip on partition/separator can be clipped and it should accept pvc boxes, frames/plates for wiring devices of required modules. PVC trunking cable management system used for distribution of voice data and power cables should accept pvc boxes, frames and plates for fixing modular switch-sockets for power, RJ45 data socket and RJ 11 telephone socket

- (ii) Wiring for power convenience sockets, internet outlets and telephone outlet sockets over work tables in laboratories/offices shall be carried out in 100mmx50mm PVC trunking /raceways in surface on wall just above the laboratory tables top as directed by Engineer incharge. The PVC trunking/raceway shall be of standard approved make and shall be complete with all standard accessories like couplers, end caps, bents, tees, corners, separators, mounting frames and pvc boxes suitable for fixing modular wiring accessories such as switch sockets, internet and telephone outlets etc. The trunking/race way and accessories shall be described in the schedule of quantities.
- (iii) The trunking shall be fixed directly on wall or ceiling by means of suitable screws to approved type of fiber fixing plugs at interval such that the weight of the trunking and cable hold firmly on the wall or ceiling surface. Wiring up to trunking/raceways shall be brought in medium class PVC conduit in recess/surface and with approved adapter box to connect the conduit to the trunking/raceway shall be provided. Modular switch sockets, modular internet and telephone outlets shall be provide on trunking/raceway at regular interval or as indicated in layout drawing or as directed by engineer incharge. Installation of trunking /raceway wiring system shall be carried out in consultation with engineer incharge as per manufacturer's recommendation/ CPWD guidelines.
- (iv) The trunking cable management system/race ways/wire ways in straight run should be in single piece as far as possible so as to avoid joints. PVC trunking shall be of 2 meter or 3 meter standard length for the ease of installation. Trunking should have insulation rating of five mega ohm.
- (v) All joints shall be scar fed and shall be smoothed down by filing to make the joints a very close fit and without burrs. Joints arising out of bends or diversion shall be done using standard accessories like internal/external angles, flat angle, elbows, flat junction/coupler and end caps. For separation of power and data cables there shall be partition in both trunking and accessories. PVC trunking shall be in white colour.
- (vi) When conductors passed through floors/walls, the same shall be carried out in approved

5. Switch Box Modular Type

Switch boxes modular type shall be hot dip galvanized factory fabricated of approved make suitable to house modular type switches of required ratings shall be provided. In case the number of switches in one box is not tallying with that available in standard manufacturer, the box accommodating the next higher number of switches shall be provided without any extra cost. The blank space left in switch box shall be covered with blanking plate of the same make as that of switches without any extra cost. Moulded modular front covers shall be fixed by means of counter sunk chromium plated brass machine screws wherever required. Switch boxes shall be located with bottom at 1250 mm above floor level or as per direction of the engineer incharge. An earth terminal with stud and two metal washers and terminal block shall be provided in each MS box for termination of protective conductors.

6. Modular Type Boxes for power socket/telephone/Internet outlets

PVC outlet boxes of approved make of required modules sizes for power sockets/telephone/internet outlets suitable for fixing on PVC trunking/raceway shall be fixed on trunking/raceway at required interval as per lay out drawings or as per direction of engineer in-charge of electrical work.

7. Cross Section

The conduit shall be of ample cross sectional area to facilitate simultaneous drawing of wires as per CPWD general specification for Electrical Works Part-1 (Internal) 2013.

8. Wires

Wiring shall be carried out with PVC insulated 650/1100V, grade unseathed single core copper conductor wire conforming to IS: 694/1990 of approved make. All wire rolls shall be ISI marked bearing manufacturer's label and shall be brought to the site in new and original packages.

9. PVC conduit

PVC conduit along with all accessories shall be laid either in recess or on surface on walls and ceiling or partly recessed and partly on surface as required as per site conditions or as directed by the engineer in-charge of electrical work. Same rates shall apply for recessed and surface conduiting in this contract. Copper wire of required size as per schedule of quantities shall be provided for loop earthing in entire conduiting work of electrical wiring. Recessed conduit shall be laid in chases to be cut in plastered wall by electrical contractor. The chases shall be cut by chase cutting electric machine of sufficient width to accommodate the required nos. of conduits and of sufficient depth to permit full thickness of plaster over conduits. Suitable flexible joints shall be provided at all locations where conduit cross expansion joints in the building. Wherever so desired conduit shall be laid in surface over finished /plastered brick work suitable spacer saddles of approved make and finish shall be fixed to the finished structural surface along the conduit route at regular interval as per standard.

10. Earthing requirement

A protective (loop earthing) conductor shall be drawn inside the pvc conduit/pvc trunking cable management system between the metallic switch boxes and distribution switch boards and terminated into proper earth lugs/terminals. Only pvc insulated copper conductor cable of specified size, green-yellow in colour shall be used. Earth pin of socket outlets shall be earthed with loop earthing. These shall be terminated on the earth terminal in the switch boxes and/or earth terminal blocks at the DBs.

11. Testing of installation

The following tests shall be conducted in the completed work of internal electrification work before commissioning:

- Insulation resistance test
- Polarity test of switch
- Earth continuity test
- Earth electrode resistance test

Testing shall be carried out by the contractor in the presence of and to the satisfaction of engineer incharge of electrical work. Besides the above, any other test specified by the local authority shall also be carried out. All tested and calibrated instruments and trained testing engineer, labour and incidentals necessary to conduct the above tests shall be provided by the electrical contractor at his own cost. All tests reading should comply to the limits mentioned in relevant IS / CPWD general specifications for electrical works: Part-I (Internal), 2013.

12. Test and test reports

Contractor shall furnish the test reports and completion electrical drawings to the department. Any test certificates of material/equipment used in this work etc as required by the department/ by local inspectors or any authority shall be provided by the contractor without any extra payment.

Signature of Contractor

List of approved Makes of Items for Electrical work

- | | |
|---|--|
| 1. Modular switches, sockets, modular RJ45 computer & RJ 11 Telephone jacks suitable for fixing in PVC Trunking. | : MK Honeywell/Roma Anchor |
| 2. Electrical and telephone copper wire | : Anchor/Havells/Polycab/RR Kabel |
| 3. PVC conduit | : Cap/AKG/ISI |
| 4. MCBs,MCCBs and DBs | : Havells/Indo Asian/Hager/Crompton Greaves/ L & T. |
| 5. PVC trunking cable management system and its accessories such as coupler,Tee,joint cover,angles, End Cap, divider,PVC mounting box etc | : MK Honeywell |
| 6. PVC insulated,pvc sheathed /XLPE Aluminium conductor armoured power cable | : Havells/Gloster/Polycab/RR Kabel/KEI/Grandley. |
| 7. Wall fan | : Crompton Greaves Hi Flo or eqv. of Bajaj Midea/Usha/Havells. |
| 8. Exhaust Fan | : Crompton Greaves/Havells /Usha. |
| 9. Cat 6, UTP Internet cable/wire | : D Link/Digi Link/Polycab |
| 10. LED Light fitting size 2'x2' with inbuilt PIR type motion sensor. | : Philips/Bajaj/C & S/Havells/Crompton Greaves/Wipro. |
| 11. 9 watt/12 watt/15watt/18 watt surface/recess mounting LED light fittings/Down lighter/ Mirror lights | : Philips/Bajaj/C & S/Havells/Crompton Greaves/Wipro |
| 12. ACBs | : L & T Havells/GE/ABB/Crompton Greaves. |
| 13. Panel Indicating lamps | : L & T/ Seimens/Vaisno. |
| 14. Panel Volt meter/ Ammeter | : L & T/ Seimens/Secure |
| 15. Current Transformer | : Kappa/L & T/Seimens |
| 16. Selector switches | : L & T/ Seimens/Vaisno. |
| 17. Cable Glands/ Lugs | : Jainson/Dowells |
| 18. Armoured industrial Telephone Cables | : Havells/Gloster/Polycab/RR Kabel/KEI/Grandley. |
| 19. PIR Occupancy/Motion Sensor & accessories for Controlling LED lights. | : ABB/Havells/Philips/Wipro/Hager/MK Honeywell or eqv. approved. |

Signature of Contractor

UNDERTAKING BY THE BIDDER

File No.: 1/WKS/30/21-GI.

Name of Work: - Refurbishment of non working Tissue Culture Facility for Floriculture Mission at NBRI, Lucknow.

I/We, the bidder(s) have read/gone through the contents of the NOTICE INVITING TENDERS/TENDER DOCUMENT carefully and accordingly hereby giving undertaking to abide by the same terms and conditions of tender documents and are fully acceptable to me.

Department reserves the right of Non-consideration of Tender documents of the agencies who are not fulfilling the NIT stipulations and / or having adverse report on the works carried out by them in the past.

Signature with Seal and date

**Name of work: Refurbishment of non working Tissue Culture Facility for Floriculture
Mission at NBRI, Lucknow.**

COVER -II PRICE BID

**Bill of Quantity (ONLINE MODE in xls. sheets available in NIT uploaded on e-portal only)
(Civil, Electrical and air conditioning works)**

निविदा संख्या: 1/WKS/30/21-GI

Tender No. : 1/WKS/30/21-GI