**BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES**

53, UNIVERSITY ROAD, LUCKNOW – 226007

TENDER NO **BSIP/DNA LAB/WORKS & BUILDING/2017-2018/**

**TENDER DOCUMENT**

**For**

**SETTING UP DNA LABORATORY**

|  |  |
| --- | --- |
| **DATE OF ISSUE OF TENDER FORM WITH DOCUMENT:** | **20.12.2017** |
| **DATE & TIME OF PRE-BID MEETING:** | **02.1.2018** |
| **DATE & TIME FOR SUBMISSION OF TENDER DOCUMENT:** | **From 20.12.2017 to 11.01.2018 up to** |
|  | **12.30 p.m.** |
| **DATE & TIME FOR OPENING OF TENDER DOCUMENT:** | **On 11.01.2018 at 1530 p.m.** |

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**BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES**

53, UNIVERSITY ROAD, LUCKNOW – 226007

**No. BSIP/DNA LAB/WORKS & BUILDING/2017-2018/** **Dated: 15.12.2017**

**“NOTICE INVITING TENDER FOR SETTING UP DNA LABORATORY"**

**Birbal Sahni Institute of Palaeosciences, Lucknow** (BSIP, Lucknow) invites bids for setting up of **DNA** Laboratory from reputed companies/ firms/ individuals/ societies etc . Accordingly, sealed tenders are invited latest by **11.01.2018** up to 12:30 p.m..

1. Complete Tender Document may be downloaded from the website of BSIP, Lucknow “([www.bsip.res.in](http://www.bsip.res.in))” The bidders using the tender form downloaded from the website shall enclose a Demand Draft for Rs. 2,000.00 as tender fee and Earnest Money Deposit (EMD) of Rs. 3,00,000/- (Rupees Three Lacs only)payable at Lucknow and drawn in favour of “BSIP Lucknow”.
2. The sealed envelopes are to be deposited in the tender box placed at the office of Registrar, BSIP, Lucknow or may be sent through registered/speed post/ courier addressed to The Registrar, **Birbal Sahni Institute of Palaeosciences**, 53, University Road, Lucknow – 226007.
3. Any future clarification(s) and / or corrigendum(s) shall be communicated by the Registrar through the Institute website. Director, BSIP, Lucknow reserves the right to amend or withdraw any of the terms and conditions contained in the Tender Document or to reject any or all tenders without giving any notice or assigning any reason. The decision of the Director, BSIP, Lucknow in this regard shall be final.

(Dr. B. D. Singh)

Scientist ‘F’ and additional duty of Registrar

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**GENERAL INSTRUCTIONS TO THE TENDER**

1. The tender is “Two Bid’ document. The technical bid should contain all the relevant information and desired enclosures in the prescribed format along with Earnest Money Deposit (EMD). The financial bid should contain only commercial. In case, any bidder encloses the financial bid within technical bid, the same shall be rejected summarily.
2. The tender Document can be downloaded from the website of BSIP, Lucknow i.e. [www.bsip.res.in](http://www.bsip.res.in). The Technical bid must accompany with the tender fee of Rs. 2,000/- in form of Demand Draft in favour of BSIP, Lucknow. The tender document fee is non-refundable, non-adjustable and non-transferable and is payable through a demand draft on any scheduled bank drawn in favour of the **“**BSIP, Lucknow**” payable at**

**Lucknow.**

1. The Tenders should be typewritten or handwritten but there should not be any overwriting or cutting. Correction, if any, shall be made by neatly crossing out, initialling, dating and rewriting. **The name and signature of bidder’s authorized person** **should appear on each page of the application. All pages of the tender document shall be numbered and submitted as a package along with forwarding letter on agency’s letter head.**
2. The Contracts concluded as a result of this Tender Inquiry shall be governed by the

‘Terms & Conditions’ and other relevant instructions as contained in this Tender

Document.

1. The prices/rates quoted should be indicated clearly.
2. Bidders are requested to enclose a copy of their valid certificate of PAN No., TAN No, Sale Tax/VAT No./Service Tax No./ GST or any other document as requested by the Institute with their tender.
3. Tenders received without Tender Fee and EMD amount by way of demand draft in favour of BSIP, Lucknow will not be considered at all.
4. Refund of Earnest Money Deposit: The EMD submitted by unsuccessful bidders shall be returned to them without any interest whatsoever, within 15 to 90 days after conclusion of the contract with successful bidder. The EMD submitted by successful bidders shall be returned to them after the successful bidder deposits the performance security according to conditions stipulated in the bid document.

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1. Bidders may note that if the date of tender opening given in this Tender Document is declared to be a gazetted holiday, the tender shall be opened on the next working day at the same timing. In such an event the closing hours for receipt of tenders in BSIP will stand automatically extended up to 12.30 hours of the next working day in the Government offices.
2. The Prospective bidders may visit the site and physically inspect/ survey the Lab premises as per the drawing enclosed before submitting the tender.
3. Late/delayed tenders received in BSIP due to any reason whatsoever will not be accepted under any circumstances.
4. At any time prior to date of submission of tender, Tender Inviting Authority may, for any reason, or decision, modify the terms & conditions of the tender document by a corrigendum displayed on the website of BSIP, Lucknow ([www.bsip.res.in](http://www.bsip.res.in)). In order to provide reasonable time to take the amendment into account in preparing their bid, Tender Inviting Authority may or may not, at his discretion, extend the date and time for submission of tenders.
5. Tendering firms are at liberty to be present or authorize a representative to be present at the opening of the tender at the time and date as specified in the Schedule.

**The name and address of the representative authorized to attend the opening of the tender on behalf of a tendering firm should be indicated in the tender. The representative so deputed should also bring with him a letter of authority from the firm for having been authorized to be present at the time of opening of tender. Only one representative per firm shall be permitted to attend the opening of the tender.**

The name and address of permanent representative of the firm, if any, should also be indicated in the tender. Representatives of firms who have not submitted the tender or representatives not possessing authority letter from the bidders or outsiders shall not be allowed to attend the tender opening process.

1. **DOCUMENTS COMPRISING THE BID:**
2. The bids prepared by the bidder shall comprise of (1) The Technical Bid and (2) Financial Bid:

**TECHNICAL BID: -** To qualify in the Technical bid the firm should have the minimumeligibility criteria; the firm in this regard should submit the following documents –

1. Duly filled format of Technical Bid as per **Annexure “1”.**
2. Copy of constitution or legal status of the sole proprietorship/ firm/company etc.

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1. Financial status: - Copies of profit & loss account and balance sheets for more than last three years should be enclosed.
2. The technical bid should be accompanied by Demand drafts for bid security of the amount equal to sum of EMD amount as mentioned against each item applied for (refundable).
3. Copy of Income Tax Return Filed Acknowledgements for more than last Five years.
4. Copy of PAN Card.
5. Copy of Sales tax/VAT/ GST registration certificate.
6. The bidder must have adequate experience for supply/ execution of similar work in Govt. offices/ PSUs and other similar organizations. Necessary supporting documents like work orders for last five years to this effect must be submitted along with the offer.

**FINANCIAL BID: -** The financial bid shall contain:

(a) Price Bid Form **[as per Annexure** **–** **2]**

1. **SUBMISSION OF BIDS**
	1. **SEALING AND MARKING OF BIDS:** The bidder shall wax seal the Technical andFinancial Bids in separate envelopes and keep them in a bigger wax sealed envelope. The

Technical Bid shall bear the name “TECHNICAL BID OF Tender No. **BSIP/DNA LAB/WORKS & BUILDING/2017-2018/**” on the envelope, while the Financial Bid shall bear the name “FINANCIAL BID of Tender No. **BSIP/DNA LAB/WORKS & BUILDING/2017-2018/**” on the envelope for avoiding any mismatch.

* 1. The bigger envelope containing technical and financial bids in separate envelopes shall be:
1. Addressed at the following address **REGISTRAR**

**Birbal Sahni Institute of Palaeosciences, 53, University Road, Lucknow – 226 007**

1. All the envelopes shall bear the Tender name, the tender number and the words

‘DO NOT OPEN BEFORE’ (due date & time).

1. The envelopes shall indicate the name and address of the bidders to enable the bid to be returned unopened in case it is declared ‘late’ or rejected.

Bids shall be delivered in person and shall be dropped in the tender box placed in the office of the Registrar BSIP, Lucknow or shall be sent by Registered/Speed Post/ Courier.

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1. Venue of Tender Opening: Tender will be opened in the Institute at 1530 hrs on the due date. If due to administrative reason, the venue/ time of bid opening is changed, it will be displayed prominently on the notice board of the Institute as well as in the office of the Registrar BSIP, Lucknow.

**BID PRICES:**

1. The bidder shall give the total composite price inclusive of all levies and taxes (inclusive of GST). The basic unit price and all other components of the price need to be individually indicated against the goods it proposed to supply under the contract as per price schedule given in Annexure-2. The offer shall be firm in Indian Rupees only. No foreign exchange will be made available by the purchaser.
2. Prices indicated on the Price Schedule shall be entered in the following manner:
	1. The price of the goods shall be quoted in total (inclusive of all taxes and levies) for each item.
	2. The bidder shall quote only one price for each item and if more than one price is quoted under different options the rate quoted by him in the first option only will be valid and will be taken for evaluation for all the items given in schedule of requirement.
3. The prices quoted by the bidder shall remain fixed during the entire period of contract and shall not be subject to variation on any account. A bid submitted with an adjustable price quotation is likely to be treated as non-responsive and rejected.
4. The unit price quoted by the bidder shall be in sufficient detail to enable the purchaser to arrive at prices of the items offered.
5. **“DISCOUNT”, if any, offered by the bidders shall not be considered unless they are specifically indicated in the price schedule. Bidders desiring to offer discount shall therefore modify their offers, suitably while quoting and shall quote clearly net price taking all such factors like Discount, free supply, etc. into account.**
6. The price approved by the Director for procurement will be inclusive of levies and taxes, packing, forwarding, freight and insurance as mentioned in para 13.1 above. Break up in various heads like Custom duty, Excise duty, Sales Tax, Insurance freight and other taxes paid/payable as per clause 13.2 is for the information of the purchaser and any changes in the taxes shall have no effect on the price during the scheduled delivery period.

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1. **TECHNICAL EVALUATION:**
2. Purchaser shall evaluate the technical bids to determine whether they are complete, whether required sureties have been furnished, whether the documents have been properly signed and whether the bids are generally in order.
3. Prior to the financial evaluation, the Purchaser will determine the substantial responsiveness of each bid to the Bid document. For purposes of these clauses, a substantially responsive bid is one, which conforms, to all the terms and conditions of the Bid Documents without material deviations. The Purchaser's determination of bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
4. A bid determined as substantially non-responsive will be rejected by the Purchaser and shall not subsequent to the bid opening be made responsive by the bidder by correction of the nonconformity.
5. Bidders who have been shortlisted after technical evaluation will be required to permit their plans through drawings; photographs & illustration vide power point presentation. Technical evaluation committee may reject any tender if not found suitable as per the requirements of the Institute.

**15. FINANCIAL EVALUATIONS AND COMPARISON OF SUBSTANTIALLY TECHNICAL RESPONSIVE BIDS:**

1. The purchaser shall shortlist those who are eligible and have submitted substantially technical responsive bid for opening of financial bid after their successful demonstration. Successful Bidders would be called to attend opening of financial bids. The Financial Bids of unsuccessful bidders would not be opened and destroyed.
2. Arithmetical errors shall be rectified on the following basis. If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the Purchaser. If there is a discrepancy between words and figures, the amount in words shall prevail. If the Supplier does not accept the correction of the errors, his bid shall be rejected.
3. The evaluation and comparison of responsive bids shall be done on the price of the goods offered inclusive of Levies & Taxes i.e., Sales Tax, VAT, GST & Excise Duty, packing, forwarding, freight and insurance etc. as indicated in the Price Schedule in annexure-“2” of the Bid Document but exclusive of octroi/ entry tax which will be paid extra as per actual, wherever applicable.
4. The Purchaser may waive any minor infirmity or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.

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1. **AWARD OF CONTRACT: PLACEMENT OF ORDER**

The Purchaser shall consider placement of orders for commercial supplies on those bidders whose offers have been found technically, commercially and financially acceptable and whose goods type have been approved/ validated by the purchaser. The Purchaser reserves the right to counter offer price(s) against price(s) quoted by any bidder.

1. **PERFORMANCE BANK GUARANTEE & EXECUTION OF CONTRACT:**
2. Firm whose offer is accepted will have to furnish Performance Bank Guarantee of an amount equal to 10% of the value of contract, in favour of BSIP, Lucknow issued by any scheduled bank.
3. The performance Bank Guarantee submitted should be valid for One Year.
4. The Performance Bank Guarantee shall be refunded within 15 to 90 days after completion of the contract as per order, or after the expiry of contract on satisfactory completion of the same whichever is later.
5. No interest will be paid on Performance Bank Guarantee/ Earnest Money Deposit.
6. In case of breach of any terms and conditions of the contract or on unsatisfactory performance, the amount of security deposit shall be liable forfeited by Registrar BSIP, Lucknow and his decision shall be final
7. The expenses of completing and stamping the agreement shall be paid by the bidder.

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**TERMS & CONDITIONS OF THE CONTRACT**

1. **Manner of Submission of Tender:** The bidding should be done on two bid methodviz 1) Technical Bid & 2) Commercial / Price Bid. The bidders should ensure that the Technical bid complete in all respect and containing the required enclosures (attested Photocopy) is sealed in a separate envelop and the commercial bid sealed in a separate envelop & both the sealed envelopes are kept and sealed in a suitable size of envelop. All envelop will be address to The Registrar BSIP, Lucknow. The Sealed Technical bid Envelop of all bidders will be opened first. Only the Commercial bids of those who have furnished all the valid documents will be opened.
2. **Language:** The language of the Tender shall be in English.
3. **Documents to Accompany Tender:** The Tenderer shall submit the Documentsmentioned in the clause 16 of General Instructions to the Tender.
4. The bidders must have at least 05 (Five) years experience in this job and credentials of Rs. 75 Lacks annually in this business in the last three years done in any Govt. Hospital directly/Govt. Research Institution directly. Credential Certificate in this regard must be furnished by the bidders along with their Tender.
5. The firm / agency must have requisite trade and other licenses to do the business of lab Furniture & Instrument for which the bid is being made.
6. **Earnest Money Deposit:** Each Tender must be accompanied with “Earnest MoneyDeposit” in the form of Demand Draft, as mentioned in the Notice Inviting Tender.
7. **Forfeiture of Earnest Money:-**
	1. If the Bidders withdraw their Bids after opening of the same or the successful bidders withdraw their Bids after approval of their rates.
	2. If the successful bidders fails supply or refused either partial or total offer (Acceptance) made by The Registrar BSIP, Lucknow.
8. **Return of Earnest Money :-**
	1. After finalization of the Tender, the deposited Earnest Money will be returned back to the unsuccessful bidders.
	2. On receipt of Security Deposit, the deposited Earnest Money will be returned back to the successful Bidders.
9. **Deposition of Security Money: -** The Selected bidders must deposit the requisiteamount of Security Money (10% of the approximates value of accepted items) within the stipulated date specified in the acceptance letter. The approved firm shall deposit the Security Money in the form of Demand Draft/Bank Guarantee payable at Lucknow duly pledged in favour of BSIP, Lucknow.

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1. **Forfeiture of Security Money :-**
	* 1. In the event of failure to supply or maintain the equipment / instruments as per Work Order within the stipulated period, the security deposit may be forfeited.
		2. In that event, supply of the said equipment may be taken from the next lowest bidder vide the same Work Order at contractors risk and cost without any farther reference, so that the loss incurred would be recoverable from the Security Deposit of the said contractor or from any sum due of which may become due to the contractors.
		3. If any equipment/ instrument is damaged by the approved firm, cost of the same will be deducted from the deposited Security money of the contractor.
2. **Refund of Security Deposit -** After successful completion of entire supply andperiod of maintenance Security Deposit will be refunded within the six months if not extended for further period.
3. **Submission of Documents:-**
	* 1. Each Tender must accompany attested photocopy of Pan Card, Trade License, Sales Tax Clearance Certificate / VAT/ GST Registration Certificate, Service Tax Registration Certificate, and Experience Certificate.
		2. The bidder must submit attested photocopy of Income Tax, Sales Tax / VAT and Service Tax return of last at least 05 (Five) years.
		3. In case of SSI/NSIC unit, current SSI/NSIC certificate must be deposited by the bidder along with his Tender which is issued in favour of the bidder for this type of jobs the bidder is exempted from submitting EMD & Tender Fee.
		4. In case of Co-operative Society Limited, Companies etc. this type of jobs must be included in the object of their By-laws or MoA as the case may be.
4. **Submission of the Tender:-**
	* 1. Bidder at their own cost shall have to submit Tender at the office of Registrar BSIP, Lucknow within the schedule date and time as mentioned in the Tender Notification No. **BSIP/DNA LAB/WORKS & BUILDING/2017-2018/.**
	1. The said sealed documental bids will be opened by the Tender Committee in presence of the Bidders or representative of the Bidders who may be present in the opening date & time.
5. **Rates :-**
	* 1. Rates should be clearly quoted in both in respect of each item. Rate should be quoted inclusive of all Taxes. VAT/GST & Service tax. All corrections must be initialled. **Any claims related to any taxes will not** **be entertained later on, hence it is suggested to indicate all Taxes in the price bid itself and not at any other documents**.

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1. In the event of the tender being submitted by a firm, it must be signed separately by each member thereof, or in the event of absence of any partners, it must be signed on his behalf by a person holding “Power of Attorney” authorizing him to do so. Such “Power of Attorney” is to be produced with the Tender and in the case of the firm, carried on by one member of Joint Family, it must be disclosed that the firm is duly registered under the ‘Indian Partnership Act”.
2. Necessary proof as to the financial status of the individual and firm tendering is to be attested and submitted.
3. Tender Form with all the relevant papers in details shall be essential part of the Tender.
4. Before submission of the Tender, the bidder shall sign each page of his Tender and all of its relevant papers with date. The additional alternative and or subtractive clause (if any) shall also to be signed by the bidder.
5. **Warranty: -** The goods/stores/articles/furniture/equipments supplied by result ofthis contract/supply order shall be of the best quality and workmanship and new in all respects and shall be strictly in accordance with the specifications and particulars contained /mentioned against each item in the tender document/supply order. The seller guarantees that the said goods/stores/articles/ furniture/equipments would continue to confirm to the description and quality aforesaid for a period of 12 months from the date of delivery/installation of the said goods/stores/articles/furniture/equipments to the buyer or 15 months from the date of shipment/dispatch from the sellers work, whichever is earlier.
6. **Delivery Period: -** Delivery period for the supply of lab furniture will be three weeksfrom the date of receipt of supply order. Please note that contract can be cancelled unilaterally by the buyer in case items are not received within the contracted delivery period. Extension of contracted delivery period will be at the sole discretion of the buyer, with applicability of LD clause.
7. **Liquidated damages:**- In the event of the seller’s failure to submit the guaranteesand documents, supply the stores/goods, installation of furniture, the buyer may at its discretion withhold any payment until the completion of the contract. The buyer may also deduct from the seller as agreed, liquidated damages to the sum of 0.5% of the contract price of the delayed/undelivered stores/services mentioned above for every week of delay or part of the week, subject to the maximum value of the Liquidated Damages being not higher than 10% of the value of delayed stores.
8. **Payments terms:**- 70% payment will be made after received of martial & 30% on successful completion of worksubject to submission of following documents :-
	1. Ink signed copy of bill in triplicate.
	2. Ink signed copy of commercial invoice
	3. Copy of original supply order
	4. Inspection note

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* 1. Guarantee/Warranty certificate
	2. Performance Bank guarantee
	3. DP extension letter if any.
	4. Details for electronic payment viz accounts holder name, bank name ,branch name, IFSC code, MICR code
1. **Option Clause: -** During the currency of the contract, the buyer (BSIP, Lucknow) canexercise an option to procure an additional 50% of the original contracted quantity in accordance with the same terms & conditions of the present contract. This will be applicable within currency of contract. The Bidder is to confirm the acceptance of the same for inclusion in the contract. It will be entirely the discretion of the Buyer to exercise this option or not.
2. **Repeat Order Clause:**- The buyer (BSIP, Lucknow) can order up to 50% quantity ofthe items under the present contract within six months from the date of supply/successful completion of the work, the cost, terms & conditions remaining the same. The bidder is to confirm acceptance of this clause. It would be entirely the discretion of the buyer to place the repeat order or not.
3. **Apportionment of Quantity:** If there is apprehension that the L 1 may not have thecapacity to supply the entire requisite quantity within the defined time the order may be placed on L 2, L 3 and so on for the balance quantity at L 1 rates, provided this is acceptable to them. The ratio of splitting of supply order will be worked as per the capability of the L 1 firm.
4. **The quantity as per the Annexure “2” may be revised upward/downward subject to the requirement of the Institute. Any minor deviation or variation will bear no financial effect. The vendor will work in association with civil contractors of the institute to ensure proper connectivity to all fittings and fixtures.**
5. **Disputes: -** In the event of any dispute or disagreement arising between thecontractors and any other department of BSIP, Lucknow with regards to the interpretation of “Terms & Conditions” stipulated herein or in the contract done, the same shall be referred to the Director, BSIP, Lucknow whose decision will be final and binding upon the contractor.
6. Rate must be valid for entire tender period (Up to 31st December, 2018), which, if the Institute authority desires, may be extended for further period issuing proper notification.
7. Acceptance of lowest tender is not obligatory.
8. The BSIP, Lucknow reserves all rights to accept or reject any Tender without showing any reason.
9. The Tender, submitted by the firm who have already been declared as Black Listed or whose contract was terminated for dissatisfactory supply or repairing works or who was unable to execute any repairing order in this hospital or in any other Lab/

Hospital run by the state or central government, will not be considered even his being the lowest rate.

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1. Regarding Supply and Charges for repairing, Abnormal Low Rate or Abnormal High Rates (in comparison to the market Rate) will not be considered.
2. The approved firm, after supplying the equipments, have to deposit the spares (if any) to the in-charge of the respective user Department which should be shown clearly in the Service Reports duplicate copy of which must be furnished to the BSIP, Lucknow. The repairing bill may be submitted after execution of the work order satisfactorily along with the Service Report duly certified by the in-charge of the respective user Department.

(Dr. B. D. Singh)

Scientist ‘F’ and additional duty of Registrar

**SIGNATURE OF THE BIDDER**

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**ANNEXURE “1”**

|  |  |
| --- | --- |
|  | **TECHNICAL BID FORMAT:** |
|  |  |  |
| 1 | Name of the firm/ Society/ Company/ |  |
|  | Proprietary Concern |  |
|  |  |  |
| 2 | Address of registered office |  |
|  |  |  |
| 3 | Address of the office at Lucknow (if) |  |
|  |  |  |
| 4 | Telephone Nos./Fax/E-mail  |  |
|  |  |  |
| 5 | Earnest Deposits money (EMD) Yes/No |  |
|  |  |  |
| 6 | EMD Details |  |
|  |  |  |
|  | FRD/Bank Draft No. |  |
|  |  |  |
|  | Dated |  |
|  |  |  |
|  | Amount (In Figures) |  |
|  |  |  |
|  | Amount (In Words) |  |
|  |  |  |
| 7 | Banker of Company/ Firm/agency with full |  |
|  | address (Attach certified copy of statement of |  |
|  | A/c for more than last three years) |  |
|  | Telephone Number of Banker |  |
|  |  |  |
| 8 | PAN / GIR No. |  |
|  | (Attach attested copy) |  |
|  |  |  |
| 9 | VAT/SALE TAX/ GST Reg. No. |  |
|  | (Attach attested copy) |  |
|  |  |  |
| 10 | Service Tax Registration No. |  |
|  | (Attach attested copy) |  |
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|  |  |  |
| --- | --- | --- |
| 11 | Details of clients along with address, telephone |  |
|  | and Fax numbers, Amount of contract, |  |
|  | Duration of contract (Attach a separate sheet) |  |
|  |  |  |
| 12 | Proof of financial status in form of Audit |  |
|  | Report, Balance Sheet, Profit & Loss A/c along |  |
|  | with all the schedules etc. For the last five |  |
|  | financial years. **Average Annual turnover.** |  |
|  |  |  |
|  |  |  |
| 13 | Acceptance of terms & conditions attached |  |
|  | (Yes/No). Please sign each page of terms and |  |
|  | conditions as token of acceptance and submit as |  |
|  | part of tender document. |  |
|  |  |  |
| 14 | Have you/your expert physically inspected/ |  |
|  | surveyed the Lab premises before |  |
|  | submitting the tender. (Yes/No) |  |
|  |  |  |

(Signatures of the authorized signatory with seal of tendering firm)

Date: Name:-

Place: Address:-

Mob. No. -

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**ANNEXURE “2”**

**PRICE BID FORM**

To,

The Registrar,

BSIP,

Lucknow.

Dear Sir,

1. I/We .......................................................................................submitted the bid

for Tender No. **BSIP/DNA LAB/WORKS & BUILDING/2017-2018**for “Set-up of DNA Laboratory” at BSIP, Lucknow.

1. I/We thoroughly examined and understood instructions to tenders, scope of work, terms & conditions of contract given in the tender document and those contained appendix of Terms & Conditions of contract and agree to abide by them.
2. I/We hereby offer to supply and work at the following rates. I/We undertake that I/We are not entitled to claim any enhancement of rates on any account during the tenure of the contract.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.****No.** | **Description** | **Quantity** | **UNIT** | **UNIT RATE** | **Total Amount** |
| **1.** | Air-Cooled Condensing Unit | 2  | No |  |  |
|  | Supply and installation of Air Cooled Condensing units with scroll/Rotary compressor, copper tube/aluminium fin condenser coil,Axial type condenser fan with direct driven motor. The unit would be suitable to operate with 415V/3ph/50Hz power supply.Necessary thermostat for temperature control including cabling shall b eincluded |  |  |  |  |
|  |  |  |  |  |  |
|  | CopperPiping&Valves |  |  |  |  |
| **2.** | Supply, Installation, Testing & Commissioning (SITC) of Liquid Sight Glass of size1/2''∅ | **2** | **Nos** |  |  |
| **3.** | Supply, Installation, Testing & Commissioning (SITC) of Isolating Valve of size1/2''∅ | **2** | **Nos** |  |  |
| **4.** | Supply, Installation, Testing & Commissioning (SITC) of Liquid Line Strainer/Liquid Dwyer of size 1/2''∅ | **2** | **Nos** |  |  |
| **5.** | Supply, Installation, Testing & Commissioning (SITC) of Thermost at ic Expansion Valve of size 1/2''∅ | **2** | **Nos** |  |  |
| **6.** | Supply, Installation, Testing & Commissioning (SITC) of Copper piping of size 1/2''∅ | 20  | **RMT** |  |  |
| **7.** | Supply, Installation, Testing & Commissioning (SITC) of Copper piping of size 1-1/8''∅ | 20  | **RMT** |  |  |
| **8.** | Supply, Installation, Testing & Commissioning(SITC)ofGI Drain PipeforAHU40mm |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Air Handling Units** | 2 | **Nos** |  |  |
| **9.** | The AHU constructed over a metallic structure made with a normalized steel profiles, covered with sandwich type panel. The panel is made with lacquered galvanized stainless steel plates, with 120kg/m3 rock-wool foam core. The gaps between panel and structure will be sealed with neoprene joints in order to guarantee the air tightness of the AHU. Several maintenance doors are built in the AHU, the one for maintenance being double and safety check. All the supply AHUs comprise of following sections: Intake louver, Pre- filtersectionwith20microns and10 microns filters, Cooling coil section, blower section, driver set and pulley, fine filter section with 5micronfilter. Other accessories like dampers, SS 304drainpan,Commonbaseframe With vibration isolators pads, Suitable inspection doors for filter, coil& blower sections, are provided. They are connected to HEPA filters for all BSL-3rooms,corridors and air-lock rooms. All HEPA filters, the lay-in type,areat99.99%efficientto@0.3 micron particle size, hermetically sealed and ducted aluminium terminal units. Each unit has an upstream sample port, and protective painted aluminium face screen. The Supply Air Handling Unit will be connected to AHU of suitable capacity for temp and RH control. The HEPA filter should be capable to withstand corrosive agents and gases used for lab fumigation. The Exhaust/Blower fan shall be turned at once to achieve the set value of negative pressure. Supply of AHU : 2000 CFM |  |  |  |  |
| **10.** | **AHU Heaters** Supply and Installation o fElectrical tubular heaters for AHU's including thermostat and humidistat to be placed at supply air main duct - AHU's.(1 Working+1Standby) Heater for AHU(2000CFM):6KW |  |  |  |  |
| **11.** | **Humidifiers** |  |  |  |  |
| **12.** | Supplying, installation, testing and commissioning of Pan Type Humidifier made from minimum 2mm thick stainless steel sheet top closed and insulated with 50mm thick expended polysterene (T.F.Quality) complete with incommining MCB, humidstate and control wiring. Capacity:11 KW | 1 | **No** |  |  |
|  | **Duct** –GSS Supply &Installation of Ducting made out of GI sheet 280GSM Coating with metallic flanges, 6mm Gasketting & all joints to be sealed with silicon sealants (Dow Corning- Grade 752 Clear) and to be tested according to SMACNA Standards Class1 at site after installation with proper gasketing, supports, rods etc achieve zero leakas the requirement is for bio-safety lab, complete with all necessary hardware, accessories, fittings and fixtures, as per description in individual items, technical specifications, drawings and instructions of the Engineer Incharge. |  |  |  |  |
| **13.** | **24 G** | 38  | Sq Mt |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 14  | 22 G | 16 | Sq Mt |  |  |
| 15. | **Duct Insulation** Closed cell, Fire retardant, self extinguishing type crossed linked polyethylene insulation density not less than 24Kg/sqM, "K"value not more than 0.028Kcal/degC with adhesive tape etc, on duct complete as per specification and drawings 19 MM | 60 | Sq Mt |  |  |
| 16. | **Volume Control Dampers** Supply, Installation, Testing & Commissioning (SITC) of Volume control dampers with opposed blade Zero leak type. Supply, fix, balance, and commission louvre type smooth supply airduct dampers made of extruded aluminium linkage, lever, fixing arrangement etc. The damper shall be with all necessary hardware, accessories, fittings and fixtures, as per description in individual items, technical specifications, drawings and instructions of the Engineer-Incharge. | 0.8 | Sq.Mt. |  |  |
| 17. | **Motorized Volume Control Dampers** | 1.2 | Sq.Mt. |  |  |
| 18. | **Actuators for Motorized VCD** Supply, Installation, Testing & Commissioning of Modulating type motorized actu ator with operating voltage of 24VoltAC/DC and modulating voltage of 0- 10 VDC supply | 5 | Nos |  |  |
| 19. | **VAV (Variable Air Volume systems)** Variable air volume unit for single duct installation comprising of GSS Cabinet (22gauges) duly acoustically lined with fiber free insulation, elliptical shaped volume control damper & cross flow differential pressure probe at inlet complete with BMS (BACNET) compatible actuator cum controller. | 2 | Nos |  |  |
| 20. | **Diffuser** Supply, Installation, testing and balancing of square/circular supply air, as per specs. and drawings. | 1.2 | Sq. Mt. |  |  |
| 21. | **Fire Damper**Fire damper with Blades of formed 1.6mm Galvanized steel, Axis of Plated solid steel stubs, Bearing of Permanently sealed Bronze oil lubricated, Linkage of Plated steel on BladetypeActuatorof74ºCULrated fusiblelinkor74ºC Electro Thermal Link, Sleeve of 18 GA Galvanized steel 400/485mm,Sidesealsof Metallic Compression type | 0.60 | Sq. Mt. |  |  |
| 22. | Supply of UL-Listed Fusible Links Per ModULeFor Fire Dampers Rated For74 DegC | 2 | No |  |  |
| 23 | Supply of Limit Switch Assembly Per ModULe For Blade Indication | 2 | No |  |  |
| 24. | **Sound Dampers** | 0.3 | Sq. Mt. |  |  |

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| --- | --- | --- | --- | --- | --- |
| 25. | **Magnehalic Gauge** Supply, Installation, Testing & Commissioning (SITC) of Magnahalic Guage with SS box, with required silicon tubing pressure range- 60 to 60 Pascals, complete with all necessary hardware, accessories, fittings and fixtures, as per description In individual items, technical specifications, drawings and instructions of the indentor |  |  |  |  |
| 26 | **Wall Panel** Supply Installation Testing & Commissioning (SITC) of Wall panels made up of GI powder coated of 0.8mm thick sheet on both sides, with 80mm thick class 'O' PUF of min.38kg/m3 density sand witched in between. The GI sheets hall have 80 micron thick powder coating by hot dipgalvanizing with zinc coating not less than180gm/sqm both side of the panel with Return air risers with filter grid. Scope includes bottom runner, interconnecting profiles, fixing arrangements, silicon seal and application and all other accessories required to complete the work as per site requirement. Colour: Powder coated, complete with all necessary hardware, accessories, fittings and fixtures, as per description in individual items, technical specifications, drawings and instructions o fthe indentor. |  |  |  |  |
| 27. | **False Ceiling** Supply Installation Testing & Commissioning (SITC) of the Modular False Ceiling System Shall Comprise of Ceiling panels of double skintype,80mm thick, sandwiched with self- extinguishing quality PUF of density not lessthan38kg/cum. the inner and outer skin shall be of powder coated steel sheet, the thickness of inner skin and outer skin of the panel shallnot less than0.8 mm the powder coated steel sheet | 42 | Sq. Mt. |  |  |
| 28. | **Epoxy Flooring / PVC Flooring** Supply Installation Testing & Commissioning (SITC) EPOXY/ PVC flooring, complete with all necessary hardware, accessories, fittings and fixture | 21 | Sq. Mt. |  |  |
| 29. | **Coving** Supply, Installation, Testing & Commissioning (SITC) of coving with required back supports with application of clear seal ant to the lips of the coving, complete with all necessary hardware, accessories, fittings and fixtures, as per description in individual items, technical specifications, drawings and instructions of the indenter. | 112 | RMt. |  |  |
| 30. | PVC 3D Corner covings with back supports as required and application of clear seal ants to all joints, complete with all necessary hardware, accessories, fittings and fixtures, as per description in individual items, technical lspecifications, drawings and instructions of the indenter | 52 | Nos |  |  |

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| 31. | **Conduit-40mm** Supply, Installation, Testing & Commissioning (SITC) PVC-FRLS conduits complete with all fittings and accessories-40 mm | 75 | RMt. |  |  |
| 32. | **Cut out** Supply, Installation, Testing & Commissioning (SITC) of Factory made cut outs and reinforcement surrounding the cut out in the ceiling panel for fixing SA diffuser/filters/ light fixtures in the ceiling panel. | 15 | Nos |  |  |
| 33. | Supply, Installation, Testing & Commissioning (SITC) of Factory made Cut outs in wall panel for fixing the electrical module boxes for power, UPS sockets, digital display devices for pressure and temp monitoring – Sockets and switches | 10 | Nos |  |  |
| 34. | **Doors** Supply, Installation, Testing & Commissioning (SITC) of modular sandwiched doors with both side GI powder coated, GI Sheet construction 0.8mm thickness duly flushed with the walls, with 45mm thick PUF, sandwiched between GI sheets, with door frame, including flushed hinges, view panels (800Wx900H), SS304 handle/push plates and hydraulic door closers. General construction as per drawings attached, but frame width and leaf width to suit the site conditions. Drawings attached are for guidance purposes only, complete with all necessary hardware, accessories, fittings and fixtures, as per description in individual items, technical specifications, drawings and instructions of the indenter**Entry in ancient DNA lab should be through card,  so a card reader should be installed.** | 6 | Nos |  |  |
| 35. | **Electrical Panel and Accessories** The main Power Distribution panel (LT Panel) shall be manufactured by a CPRI approved manufacturer. The LT Power cables for use on 415V system shall be of 1100 volt grade, aluminium conductor, PVC insulated, PVC sheathed, armoured and overall PVC sheathed, strictly as per IS:1554 (part)- 1976 amended up to date. Cable Glands. Shall b provided for end termination of cables. These shall be provided at both ends of armoured/un armoured electrical cables. Cable glands shal l conforms to BS- 6121 amended as on date. Double compression glands shall be complete with check-nut, gland body, neoprene outer ring, armour clamping cone, armour-clamping ring, armour clamping nut, skid washer &outer seal nut. Supplying and fixing of LT Panel accessories of approved make in existing LT Panel including connections etc. as per description in individual items, technical specifications, drawings and instructions of the indenter. | 1 | Nos |  |  |
| 36. | Entire lab should be positive pressured.  First chamber of the lab should have 5 pascal of pressure however second and third should have 15 and 20 pascal of the pressure,  this is just opposite with the BSL labs where pressure need to be negative.   |  |  |  |  |

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| 37. | **VARIABLE FREQUENCY DRIVES** For following ratings, HVAC series Variable frequency drives based on Advanced digital Vector/Digital torque control technology to be provided. The VFD shall have a metallic enclosure with a protection of minimum IP20 and shall be suitable for installing inside IP52, MCC without any dating. The AHU motor and Exhaust Blower motors shall be provided with Variable Frequency Drive (VFD). The Adjustment, Control and Monitoring system of the BSL-3 Laboratory room/zone pressures shall be provided through the BMS, as per description in individual items, technical specifications, drawings and instructions of the indenter. | 2 | Nos |  |  |
|  | **Power and Control Cable Supply, Installation, Testing & Commissioning (SITC) of Following sizes** |  |  |  |  |
| 38. | 4Sqmm | 810 | RMt. |  |  |
| 39. | 2.5Sqmm | 200 | RMt. |  |  |
|   | 1.5Sqmm | 100 | RMt. |  |  |
| 40. | 35sqmm x 3.5 core-Aluminium Armoured Cable | 50 | RMt. |  |  |
| 41. | 2.5sqmm X 4 core - copper - ArmouredCable | 75 | RMt. |  |  |
| 42. | 1.5sqmm X 4 core - copper - ArmouredCable | 160 | RMt. |  |  |
| 43. | Conduit-25 /40 mm | 60 | RMt. |  |  |
| 44. | Lan Wire | 30 | RMt |  |  |
| 45. | Telephone Wire | 25 | RMt |  |  |
| 46. | Light Fixtures, Switches & Sockets Clean room Light fixtures: BSL lab compatible, 'O' leak, fitted with 5mm The Toughened Glass,2x36watts CFL top opening type with electronic ballast with; Housing :CRCA powder coated frame-less Lens: To provide Toughened glass with 3 M adhesive tape (to be fixed inside the opening provided in 60mm ceiling) Reflector : Preanodized imported aluminium Ballast: Philips electronic with pf>0.98&THD | 9 | Nos |  |  |
| 47 | Supply, Installation, Testing & Commissioning (SITC) of Switch Socket & Accessories | 1 | Lot |  |  |
| 48. | Control System: Supply, Installation, Testing and commissioning of Alarm and monitor ring of various parameters, placement of Sensors, Hawkeye |  |  |  |  |
| 49. | Fire Detection and Alarm System The Fire Detection & Alarm System shall be complete with Smoke detectors, Heat detectors, Fire Alarm Panel, manual call points, response indicators, power and control wiring and cabling etc. complete in all respect. | 1 | Lot |  |  |
| 50. | Supply & Installation of UPS of 40 KVA | 1 | Nos |  |  |

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| 51. | **Door Inter lock+ Access Control system** The door interlock and access control system shall be provided with combination of proximity card based, numerical key pad lock based and push button based system. The system shall be complete with access logic controllers, door electromagnets, proximity cards and card reader/s, numerical keypad locks, door release push buttons, emergency door release buttons, PC communicator, control andpower wiring andcablingand other required accessories, hardware, and software. The access control system shall be powered through UPS supply for uninterrupted operation even during mains power failure. The door Electromagnetic Lock shall be suitable for installation on doors/frames. The electromagnetic lock and armature shall be constructed | 1 | Lot |  |  |
| 52. | **CC TV Monitoring** CCTV System shall be provided for surveillance of the Laboratory. The CCTV system shall be complete with wall/ceiling mounted high resolution colour cameras, multiplexer cum DVR, LCD colour monitor 32” size(as required), associated power and control cabling etc. and required hardware and software. The output of the CCTV system cameras shall be displayed on LCD monitor, to be installed at approved location. |  |  |  |  |
|  | **LaboratoryFurniture** |  |  |  |  |
| 53. | Tables polished 304 SS size L4xW3 xxH2.5'and storage and drawers | 4 | Nos |  |  |
| 54. | 304 SS chairs with adjustable height and antistatic Synthetic leather cushion | 4 | Nos |  |  |
| 55. | 304 SS Stool with adjustable height | 4 |  |  |  |
| 56. | Sink (Unit Covered on 3 Sides With 01 Foot Operated Valve & 01 Goose Neck Tap) | 2 |  |  |  |
| 57. | Office Table Wooden | 1 |  |  |  |
| 58. | Excutive Chair | 1 |  |  |  |
| 59. | Office chair Executive | 3 |  |  |  |
| 60. | File storage cabinets as per drawing | 3 |  |  |  |
| 61. | Testing & Validation Bio safety Lab Validation including ,particle counting , PAO Test of all heap filters Video graphy for all Classified AHU's etc. approvable by local / foreign regulatory authorities.- Duct Leak test should be done with roaster duct leak test machine as per SMACNA standards and leak test printouts to be submitted. Air velocity monitoring should be done with air flow hood. Air velocity monitoring for all AHU also should be performed. All the test shall be performed as per CCAC/CPCSEA Guidelines/Standard. Laboratoey test |  |  |  |  |

**(Signature of Authorised Person)**

**(Name)**

**(Designation)**

**Name of Firm/Company/Agency**

**Contact Details**

**ANNEXURE “3”**

**SCOPE OF WORK:**

Includes Design, Supply, Installation, Testing, Commissioning (SITC) and Validation of the Ancient DNA Lab , Insitute of Paleobatonay, Lucknow, on Turnkey Basis and its Operation and Maintenance.

Scope will include design, engineer, and install a prefabricated Laboratory with double skin PUF sandwiched panels, HVAC system including complete air management system for maintaining the lab environment as per the biosafety guidelines, all related internal lighting and wiring work for smooth and safe operation of the lab.

For safe operations as per the guidelines and monitoring of the facility, the system shall have necessary monitoring, operations & controlled through control panel for displaying indoor parameters like pressure gradient, Temperature, Humidity, exhaust air flow etc.

A Fire detection system and Access Control System at the lab entrance for restricting lab personnel movement.

The lab shall be validated as per the prevailing Guidelines and necessary documentation and validation report will be submitted at the time of handing over.

**Entire lab should be positive pressured.  First chamber of the lab should have 5 Pascal of pressure however second and third should have 15 and 20 Pascal of the pressure, this is just opposite with the BSL labs where pressure need to be negative.**

**Entry in ancient DNA lab should be through card, so installation of card reader is required.**

**Design Basis**

**Ancient Human DNA Lab-**

Overall Area: 216Sqft approx.

False Ceiling Height: 8 Ft

Volume: 1700 Cu feet

Pressure: -20 pascal to -10 pascal

Temperature: 22±2 Deg. C

Rh : 55 ± 5 %

Light: 2W /sqFft.

Cleanliness: ISO 7 (Class 10,000)

Perimeter wall: Puff Panel

Roof walk able: Puff Panel

Flooring: 2mm epoxy flooring.

Lab Furniture: Modular

**Laboratory Area:**

The proposed Laboratory Layout design is enclosed. The Laboratory space shall consist of One Library preparation area, one Extraction lab, one set change room and ante room,

The layout can be amended (only with prior approval) for better utilization of the available space to increase the laboratory area.

Overall Lab Area (Sq. Ft. ) 216 Sq. feet approx.

Library Preparation Room (approx. 100 sqft)

Extraction Room (approx. 86 sqft)

Change Room (approx. 30 sqft)

**Controlled Area –**

1) Extraction Lab : 86 Sqft Approx.

2) Change Room : 30 Sqft Approx.

3)Library Preparation room : 100 sqft Approx.

**Uncontrolled Area –**

Any other area other than mentioned above.

**Temperature and Humidity -**

The following temperature and humidity conditions shall be maintained.

 Inside Temperature: 25.0±2°C

RH : 55 +/-5 %

ACPH: More than 12 ACPH (Air Changes Per Hour )

**Cleanliness:**

1. Controlled Area :ISO 7/ Class 10,000.
2. Uncontrolled Area: ISO8/Class 1,00,000.

**Laboratory Area:**

1) **THE WALLS**: A specialized sandwiched wall panel system shall form the inner perimeter of laboratory clean room. The entire internal wall panels should be pre-fabricated with Galvanized Steel Frame and welded to form C-channel structural frame. The wall skin thickness should be of 0.5mm, sandwich with PUF material, 50-60mm thickness with 36kg/m3 Density. The aluminium panel edges are sealed with Room Temperature Vulcanizing (RTV) Silicone to the structural frame with tounge groove arrangement to form an airtight sealed panel. Wall panel should be sealed airtight, that ensures no air leakage. Cut-outs on the walls to accommodate electrical outlets, control panel, monitoring devices where ever applicable.

2) **THE SOLID CEILING PANELS**: The solid ceiling panels should be pre- fabricated Puf sandwiched panels 60mm thick with36kg/m3 Density as required spanning the Laboratory Clean Room. Panels to have sealed openings for the HEPA filters and lightings. The solid ceiling panels should be placed side by side and fastened together. The HEPA filters and light housings should be arranged and sitting on the Metal frames as well as sealed in place with RTV sealant. The wall and ceiling system should be impervious, non-corrosive, antibacterial and antifungal surface finish suitable for use of wide range of chemicals like hydrogen peroxide, formalin etc. for laboratory decontamination. The solid ceiling panels shall be capable to withstand the high negative operating pressure of BSL-2 Lab and shall be suitable for normal walking pressure and strong enough to allow personnel to climb above for installation and servicing via the service access on the side of the laboratory.

 **3)** **THE RADIUS COVING PVC** (wall-to-wall, and wall-to-ceiling, from inside to outside corner): Smooth radius coving should be installed at all wall-to-wall and wall-to-ceiling and ceiling-to-ceiling joints. All seams should be carefully sealed with RTV sealant.

4) **THE DOORS**: All Air-Tight Single Doors (air-lock to the outside of the BSL-2 Laboratory) should be constructed with steel and powder-coated (for easy cleaning). The Single doors should be installed completely with pull-door-handle door, closer; Airlock Doors shall be Air-Tight Doors. These Air Tight doors should have drop seal arrangement to provide air tight seal.

**5)THE FLOORING**: The floor should be made 2mm epoxy ,uniform, chemical resistant.

**6) HVAC SYSTEM** Air cooled condensing unit (Dx type)shall consist of hermetic scroll air-conditioning compressor assembly, air-cooled coil, room approved make Carrier, Blue Star, Voltas .

Air Handling Unit (AHU) The AHU constructed over a Base structure Aluminium profiles, covered with sandwich type panel. The panel frames is made with Aluminium profiles. The gaps between panel and structure will be sealed with neoprene joints in order to guarantee the air tightness of the AHU. Several maintenance doors are built in the AHU, the one for fan maintenance. AHU includes the following sections: Mixing sections, with regulation dampers for fresh intake air and return air, Pre –filteration section with G-4 and F-9 prefilters, coil Section, fan section including high-pressure fan, absolute filteration section H-14. AHU must be installed over an anti-vibration platform

The Supply and Exhaust Duct: All the supply air ducts should be of GI comprising of following sections: Intake Louver, Pre filter section with 20 microns and 10 Micron filters, Cooling coil section, blower section with DIDW blower, drive set and pulley, fine filter section with 5 micron filter. Other accessories like dampers , 24G SS 304 Drain pan , Common base frame with vibration isolators pads, Suitable inspection doors for filter, coil & blower sections, are provided.

The supply air duct should be connected to Housing Assembly with Slide in HEPA filter at AHU end. Each unit should have an upstream sample port, and protective painted aluminum face screen. The Supply Air Handling Unit will be connected to DX type Outdoor refrigeration units of suitable capacityfor temp and RH control. The HEPA filter should be capable to withstand corrosive agents and gases used for lab fumigation. The Exhaust/Blower fan shall be turned on at once to achieve the set value of negative pressure.

BSL Rooms are cascading “Negative Air Pressure” from BSL-2 laboratory to the air-lock. All exhaust air ducts should be made of GI . Each exhaust should be protected by the Protection Grilles. The HEPA filters should be enclosed in an airtight Modular powder coated frame with flange to connecting to exhaust duct.

Air Supply and Exhaust is on 30:70 recirculatory basis. Exhaust air must be passed through HEPA filters before being exhausted out. Exhaust HEPA Filters shall be in BIBO configuration.

All fresh air ducts and their outer inlets should be installed with insect screen.

Prefilter frame with pre-filters then installed at the point into the AHU Blower Cabinet. Pre-filters should be 20/25% ASHARE with a thickness of 100mm. Pre-filters should be of 3 stages with 5-8% efficiency: ASHRAE 1st stage, 30% efficient ASHRAE 2nd stage and 90% ASHRAE 3rd stage. The 3-stage pre-filtration system should be specifically and effectively protecting the BSL-2 containment rooms.

 **7) CONTROL PANEL:**

**At the Room Side**

a) Pressure gauge Magnehalic compound type

**At the Control Side**

 System control to maintain system as the designated negative pressure .

System should be complete with MCCB, Overload Relays, contactors, Multifunction meter with digital display complete with push button, indications, selector switches, Timers , Interlocked Exhaust and Supply embedded in the control panel.

**8) THE AIRFLOW**

 1) 30:70 recirculation.

2) Air control by VCD dampers

3) Pressure measured by pressure differential gauge from outside

4) Temperature Pressure and humidity displayed at lab side.

**9) ELECTRICAL SYSTEM POWER**

The entire Lab, power points shall be fully wired and complete with required switchgears, wires, cables, switches, sockets and light fittings and fixtures complete in all respect. The electrical light switches, sockets and lights fixtures shall be sealed and flushed type and in chemical resistant finish suitable to withstand laboratory fumigation.

**10) WATER SUPPLY AND DRAINAGE**

 The unit should be able to connect to normal city water and drainage.

**11) SECURITY AND FIRE SAFETY**

 The DNA Lab shall be fitted with smoke detector and connected to Fire Alarm control panel. For restricted and controlled entry into the BSL-3 Lab, Access Control system shall be provided at the main entrance door which shall be with Proxy Card reader.

**12) MODULAR FURNTIURE**

The lab areas to furnished with modular furniture with granite table top understorage racks and cabinets.

**13) PERFORMANCE TESTS FOR THE ROOM / 3RD PARTY VALIDATION TESTS.**

1. Containment Barrier integrity check

 2. HEPA filter leak test DOP/AOP – according to the US Federal Standard 209E

3. Particle test for cleanliness; according to US Federation 209E

 5. Light intensity test

6. Noise level test

7. Air velocity test

8. Air Change rate per Hour ACH (calculated).

9. Documentation complete with layouts, electrical diagrams, work flow processes.

10. In house training of lab personnel at hand over with ceritificates.

14) Cupboard & Racks all along the wall in uncontrolled area of 120 sq ft.

 1. Storage cabinets along the wall, powder coated MS with racks inside

 2. Lockable

 3. Wooden working/study/office table – 2 Qty

 4. False Ceiling

 5. Chairs

 

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**ANNEXURE “4”**

**Format of Experience certificate**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Project | Name of the | Description | Contract | Value | Date of | Stipulated | Actual date | Remarks |
| Name | Employer\* | of work |  | of | issue | period of | of | explaining |
|  |  |  | No. | Contract | of | completion | completion | reasons for |
|  |  |  |  | (Rs. In | work |  |  | delay & work |
|  |  |  |  | Lakhs) | order |  |  | completed) |
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* Attach certificate(s) of payments.
* Immediately preceding the financial year in which bids are received.

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**ANNEXURE “5”**

**DETAILS OF SIMILAR WORKS EXECUTED DURING MORE THAMLAST 3 (THREE) YEARS**

**Name of the Agency.........................................**

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| --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|  |  |  |  |  |  |  |
| Contract | Name of | Description of | No. of | Value | Year of | Continuing |
| no./Supply | Organisation | Contract/Supply | Items |  | contract | (YES/NO) |
| order No. |  |  | Supplied |  |  |  |
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**ANNEXURE “6”**

**D E C L A R A T I O N**

From:-

M/s...............................................

......................................................

......................................................

To

REGISTRAR

Birbal Sahni Institute of Palaeosciences,

53, University Road, Lucknow – 226 007

1. I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Son / Daughter / Wife of Shri\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Proprietor/Director authorized signatory of the agency/Firm, mentioned above, is competent to sign this declaration and execute this tender document;
2. I have carefully read and understood all the terms and conditions of the tender and undertake to abide by them;
3. The information / documents furnished along with the above application are true and authentic to the best of my knowledge and belief. I / we, am / are well aware of the fact that furnishing of any false information / fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.
4. I/We further undertake that none of the Proprietor/Partners/Directors of the organization was or is Proprietor or Partner or Director of any organization with whom the Government have banned /suspended business dealings. I/We further undertake to report to the Registrar, BSIP, Lucknow immediately after we are informed but in any case not later 15 days, if any Agency in which Proprietor/Partners/Directors are Proprietor or Partner or Director of such a Agency which is banned/suspended in future during the currency of the Contract with you.

Yours faithfully,

(Signature of the Bidder)

Date: Name:

Place: Designation

Seal of the Agency Address:

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**ANNEXURE “7”**

**FORMAT FOR BANK GUARANTEE TOWARDS PERFORMANCE SECURITY**

(To be executed by any scheduled bank, on a non-judicial stamp paper under bank's covering letter mentioning address of the bank)

To,

REGISTRAR

Birbal Sahni Institute of Palaeosciences,

53, University Road, Lucknow – 226 007

In consideration of Birbal Sahni Institute of Palaeosciences, Lucknow [hereinafter referred to as BSIP’', which expression unless repugnant to the context and meaning thereof shall include its successors and assigns] having agreed to exempt M/s\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [hereinafter referred to as 'supplier /contractor' which expression unless repugnant to the context and meaning thereof shall include its successors and assigns] from depositing with BSIP a sum of Rs.\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) towards security / performance guarantee in lieu of the said contractor having agreed to furnish a bank guarantee for the said sum of Rs. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) as required under the terms and conditions of contract / work order no dated

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [ hereinafter referred as the order'] placed by BSIP on the said supplier /contractor. We,\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the bank [hereinafter referred to as 'the bank' which expression shall include its successors and assigns] do hereby undertake to pay BSIP an amount not exceeding Rs. \_\_\_\_\_\_\_\_\_\_\_\_ (Rupees

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) on the demand made by BSIP on us due to a breach committed by the said supplier /contractor of the terms and conditions of the contract /order.

1. We\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the bank hereby undertake to pay the amount under the guarantee without any demur merely on a demand from BSIP stating that there is a breach by the supplier / contractor of any of the terms and conditions contained in the order or by the reasons of the supplier's / contractor's failure to comply with the terms and conditions as stipulated in the order or amendment(s) thereto. The demand made on the bank shall be conclusive as to the breach of the terms and conditions of the order and as regard to the amount due and payable by the bank under this guarantee, notwithstanding any dispute or disputes raised by the said supplier / contractor regarding the validity of such breach and we agree to pay the amount so demanded by BSIP without any demur. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_).

2. We, the bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said order and that it shall continue to be enforceable till the dues of BSIP under or by virtue of the said order have been fully paid and its claim satisfied or discharged or till BSIP certifies that the terms and conditions of the order have been fully and

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Properly carried out by the supplier / contractor and accordingly discharge the guarantee.

3. We the bank, undertake to pay to BSIP any money so demanded notwithstanding any dispute or disputes raised by the said supplier /contractor in any suit or proceedings pending before any court or tribunal relating thereto as our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the said supplier / contractor shall have no claim against us for making such payment.

1. We \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the bank further agree that BSIP shall have full liberty, without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the order / contract or to extend time of performance by the said supplier / contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the BSIP against the said supplier / contractor and to forbear or enforce any of the terms and conditions relating to the order and shall not be relieved from our liability by reason of any such variation or extension being granted to the said supplier / contractor or for any forbearance, act or omission on the part of BSIP or any indulgence by BSIP to the supplier / contractor or by any such matter or thing whatsoever which under the law relating to sureties would but for this provisions have effect of so relieving us.
2. Our liability under this guarantee is restricted to Rs. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rupees

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) and shall remain in force up to \_\_\_\_\_\_\_\_\_\_\_ unless demand or claim under this guarantee is made on us in writing within 6 months from the date of expiry viz.

\_\_\_\_\_\_\_\_. We shall be discharged from all liabilities under this guarantee thereafter.

1. This guarantee will not discharge due to change in the constitution in the bank or the said supplier / contractor.
2. The bank hereby agrees to address all the future correspondence in regard to this bank guarantee to The Registrar, Birbal Sahni Institute of Palaeosciences, Lucknow.
3. We, \_\_\_\_\_\_\_\_\_\_\_\_\_ the bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the BSIP in writing.

Signed on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Signature**

**For the Bank**

**Witness:** **Name(s) & Designation(s)**

**Name & Address**

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