COCHIN PORT AUTHORITY

COCHIN-682009, KERALA, INDIA

Tele: 91-0484-2666414, 2666871

Telefax: 91-0484-2666414

E-mail:coptce@gmail.com

e-QUOTATION DOCUMENT FOR REPAIR & MAINTENANCE WORKS AT NORTH TANKER BERTH ADMINISTRATION BUILDING

Website:www.tenderwizard.com/CPT

SUPTDG.ENGINEER-I'S OFFICE

COCHIN PORT AUTHORITY

COCHIN-682009

QUOTATION No.T6/Q-09/2024-C

COCHIN PORT AUTHORITY

E-QUOTATION FOR REPAIR & MAINTENANCE WORKS AT NORTH TANKER BERTH ADMINISTRATION BUILDING
"Quotation No : T6/Q-09/2024-C"

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SIGNATURE OF QUOTATIONER

COCHIN PORT AUTHORITY

CHIEF ENGINEER'S OFFICE
COCHIN-9

No.T6/Q-09/2024-C Dated:- 17-08-2024

e-QUOTATION NOTICE

1. Electronic Quotations **(e-quotations) under Two Cover system** on percentage basis are invited on behalf of Cochin Port Authority, from experienced, resourceful and bonafide contractors for the following work**:**

Sl. No	Tender No. and Name of work	Particulars	Qualifying Criteria
1.	T6/Q-09/2024-C. **"Repair & Maintenance works at North Tanker Berth Administration building."** Estimated cost- Rs.4,10,540/-	Last date and time for submission of quotations-14.30 hrs on 23/08/2024. Public opening of quotations - 15.00 hrs on 23/08/2024.	See para-2 below.

2. Minimum Qualification criteria required for considering quotations:

(i)Experience:

The tenderer should have successfully completed at least:

one similar work of value not less than Rs.3.29 lakhs

OR

two similar works, each of value not less than Rs.2.06 lakhs

OR

three similar works, each of value not less than Rs.1.65 lakhs,
during the preceding seven years ending 31st July 2024.

Explanatory notes:

(a) Similar work(s) means "(a) Similar work(s) means **"*Civil Construction/Repair/ Maintenance Works*".** The experience certificate of works executed in private sectors/ organisations shall be considered for qualification, only on submission of TDS (Form No.26AS) certificate along with work order and completion certificate.

(b) Copy of completion certificates of each work issued by the owner/ responsible officer of the owner under whom he has executed such contract shall be attached. The certificate shall contain details of work involved specifying the nature of work, the completion cost of the work, date of commencement & date of completion of the work.

(c) The works reckoned for the above purpose are those executed by the tenderers as prime Contractor or proportionately as member of joint venture or Sub Contractor. The Sub-Contractor shall be an authorized and approved Sub-Contractor by the Employer of the work(s) against which the tenderer has claimed his experience. The tenderer shall attach attested copy(s) of approval issued by the Employer(s) authorizing as a Sub-Contractor; in proof of the claim of the tenderer as a sub-Contractor. The tenderer is also obliged to produce the original of the certified copy(s) on request by the department.

(d) Following enhancement factors will be used for the costs of works executed for bringing the financial figures to a common base value in respect of the works completed in the past years.

Year before	Multiplying factor
One year	1.07
Two years	1.14
Three years	1.21
Four years	1.28
Five years	1.35
Six years	1.42

ii) <u>Financial Turnover:</u>

Average Annual Turnover of the tenderer during the last three financial years ending 31st March 2023 shall not be less than **Rs.1.24 lakhs**. In proof of this Audited Annual Accounts Statements or IT returns duly acknowledged by the Income Tax department along with Computation Statement signed by the Auditor/ Chartered Accountant, for the last three years shall be produced by the tenderer.

3. Schedule of Quantities of Work & General Conditions for carrying out the work are enclosed.

Encl:- As above

Sd/--
SUPTDG ENGINEER-I

I. GENERAL CONDITIONS

1. The work consists of " **Repair & Maintenance works at North Tanker Berth Administration building"** and includes the following :

   i. Providing and laying rectified Glazed Ceramic floor tiles.
   ii. Providing and fixing Ist Quality ceramic glazed wall tiles.
   iii. Renovation of Toilets.
   iv. Providing and fixing panelled & glazed shutters for doors, windows & clerestory windows
   v. Painting works with premium acrylic emulsion paint and Acrylic smooth exterior paint
   vi. Providing and fixing FRP Door frames
   vii. Repairs to plastering walls , underside of slabs, beams, sunshades and bonding agent shall be applied before plastering

2. The bidders need to obtain the one time User ID & password for log-in to e-tendering Portal www.tenderwizard.com/COPT from the service provider M/s. KEONICS by paying registration amount of Rs.1124/- through online Payment using Credit/Debit Card/Net banking or DD in favour of "KSEDCL, Bangalore".
3. The intending bidder must have valid Class-II or III digital signature certificate to submit the bid. For further details, please contact e-Tender Help Desk No. 080-40482000/ 080-49352000/ 9746118529/ 9605557738.
4. e-Quotations are invited from the experienced contractors.
5. The Quotationer shall submit the Quotation Notice, General conditions & Schedule of Quantities of work **'Online'.** The name and address of the quotationers shall be necessarily entered in the space provided in the Schedule of Quantities of Work.
6. The Quotationer shall inspect the site before submitting the quotation in order to make them fully aware of the site and its conditions.
7. Clarifications if any required can be obtained by contacting the Asst. Exe. Engineer/ Asst. Engineer of concerned Civil section.
8. The period of contract is **2 months** from the date of commencement of the work.
9. The Engineer-in-Charge of the work (Engineer's Nominee/ Nominee) shall be Suptdg Engineer-I.
10. **Work Site**

    The work has to be carried out is at North Tanker Berth at Ernakulam near Rajendra Maidan. The site is accessible through road. Security rules and regulations including obtaining passes etc. for work are to be observed by the contractor. The work is to be carried out without disturbing the normal Port operations

11. **Water & Electricity**

Water: Water, if required for the work, shall be arranged by the Quotationer at his own cost.

Electricity: The Quotationer shall make his own arrangements for the temporary connection for electricity required, if any, and make necessary payment for it direct to the Department concerned. No payment will be made by the Employer on this account.

12. The rate/percentage quoted shall be excluding Goods & Service Tax (GST).
13. The Quotationer shall have valid GST Registration number. GST as applicable for the work will be paid extra by the Port. The GST applicable as per law can be billed on the Port Authority, which will be paid to the Quotationer by the Board along with the bills, for which the Quotationer shall hold valid GST Registration number.
14. All labour, skilled or unskilled for the work shall be provided by the Quotationer at his own cost and settling any disputes with the labour shall be, Quotationer's responsibility.
15. All care and precautionary measures for avoiding any kind of damage/ accidents in the work site shall be taken by the Quotationer. All safety precautions shall be taken while carrying out the work. The Quotationer shall supply the necessary safety equipments to the workers employed by him and also ensure that they use it, while carrying out the work. The Quotationer shall be solely liable and responsible for accidents if any, occurring during the period of Contract.
16. The work shall be completed without causing any damage to the existing structures/cables etc. In case any damage is caused, the same has to be rectified at Quotationer's risk and cost.
17. The Port will in no way be responsible for any loss/damages caused in connection with the work.
18. The quantities specified in the schedule of quantities of work are only approximate and shall be increased or decreased at the discretion of the Engineer-in-Charge according to actual requirements. Payment will be made as per actual measurements, according to the percentage quoted.
19. Quotations shall be valid for a period of 60 days from the due date of submission of quotation.
20. **Liquidated Damages:** In case of delay in completion of the contract, liquidated damages (L.D) may be levied at the rate of half percent (½%) of the Contract Price per week of delay, subject to a maximum of 10% of the Contract Price. The amount of Liquidated Damages can be adjusted or set-off against any sum payable to the Quotationer.

21. **Security Deposit:** Security deposit @ 5% of Contract Price or value of work done whichever is higher shall be recovered from the Quotationer's bill. The amount towards Security Deposit so deducted will be released to the contractor within 14 days from the date of payment of final bill.

22. **Execution of Agreement**: The successful Quotationer will be required to execute **within 21 days from the date of receipt of work order**, an agreement at his expense on proper value Kerala State Stamp Paper in the prescribed departmental form, consisting of the work order issued to the Quotationer, together with the Quotation submitted by him including General Conditions, for the due and proper fulfilment of the contract.

23. Till signing of agreement, the Quotation together with the acceptance letter shall constitute a binding contract between the Quotationer and Cochin Port.

24. The Contractor shall comply with all the provisions of the Indian Workmen's Compensations Act, Public Liability Policy, Provident Fund Regulations, Employees Provident Fund and ESI Act etc. amended from time to time and rules framed there under and other laws affecting the Contract labour that may be brought in to force from time to time.

25. **The bidders having EPF/ ESI registration certificates only shall be considered for qualification in the tender, if applicable, as per EPF /ESI Acts.**

    In case, the Tenderer does not have the required number of employees which makes such registration mandatory, an Undertaking as per Annexure I to the effect shall be furnished.

SIGNATURE OF QUOTATIONER.

II. SPECIFICATIONS FOR MATERIALS TO BE USED ON THE WORKS

1. GENERAL

1.1 Except where otherwise specified or authorised by the Chief Engineer or the Engineer- in- charge materials supplied and works executed by the contractor must conform to the latest edition of the Indian Standard Specification and the code of practice published by the Indian Standard Institution. Samples of the materials to be supplied by the contractor shall be shown to the Chief Engineer or his representative sufficiently in advance for the approval for its quality for use on work.

1.2 All materials supplied shall be stored appropriately to prevent deteriorations or damage from any cause what so ever and to the entire satisfaction of the Chief Engineer or the Engineer- in- charge.

1.3 The materials required for the work shall be brought to the site and stacked at the places shown by the Engineer-in-Charge and the same shall be got approved for use in work sufficiently advance so that the progress of the work is not affected by the supply of materials.

1.4 Payment for the materials supplied, shall be given only after they are used on the work.

1.5 Tolls are payable by the Contractor as per rules for vehicles using the Port's road for supplying the materials.

2. AGGREGATES FOR CONCRETE

2.1 Aggregates (fine and coarse) for concrete shall comply with the requirements of I.S. 383 – 'Specifications for coarse and fine aggregate from natural sources for concrete. Aggregate shall be obtained from sources approved by the Engineer-in-Charge. Aggregates, which are not perfectly clean, shall be washed in clean water to the entire satisfaction of the Engineer-in-Charge.

2.2 The fine aggregate shall be clean, hard, durable, uncoated, dry and free from injurious, soft or flaky pieces and organic or other deleterious substances.

2.3 Each type of aggregate shall be stored separately for the approval of Engineer-in-Charge. Wet aggregate delivered at the site shall be kept in storage for at least 24 hours to ensure adequate drainage before being used for concreting.

2.4 Contractor shall maintain at site at all times such quantities of each type of aggregate as are considered by the Engineer-in-Charge to be sufficient to ensure continuity of work.

3. CEMENT

3.1 Quality of cement used for the work shall be 43 grade ordinary Portland cement conforming to IS: 8112 or 53 grade ordinary Portland cement conforming to IS: 12269 or Pozzolona cement conforming to IS: 1489 unless otherwise approved by the Engineer-in-Charge.

3.2 The cement required for the work will have to be procured by the contractor and shall comply with the relevant IS. As far as possible, cement shall be procured from government agencies. The cement shall, if required by the Chief Engineer / Engineer-in-Charge, be tested and analyzed by an

independent analyst at the Contractor's cost and result produced to the Engineer-in-Charge.

3.3 Supply of cement shall be taken in 50kg bags bearing manufacture'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 B.I.S codes. In case, test results indicate that the cement arranged by the Contractor does not conform to the relevant B.I.S 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.

3.4 A cement godown/store of adequate capacity as directed by the Engineer-in-Charge shall be constructed by the contractors at the site of the work for which no extra payment shall be made. Double lock provision shall be made to the door of the cement godown. The key 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.

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

3.6 The cement shall be stored in a weather proof building with facilities for inspection.

3.7 The contractor shall maintain a cement register showing dates of receipt and issue, quantities used daily and balance which shall be accessible to the Engineer-in-Charge.

4. WATER

4.1 Clean fresh water free from oils, acids, alkalies, salt, sugar, organic materials or other harmful materials shall be used for washing aggregates, mixing and curing of concrete. The water used shall comply with clause 5.4 of IS: 456-2000. Potable water is generally considered good for mixing concrete.

4.2 Samples of water arranged by the contractor shall be taken by the Engineer in Charge and got tested in accordance with the provisions of relevant BIS codes. In case test results indicate that the water arranged by the contractor does not conform to the relevant BIS codes, the same shall not be used for any works. The cost of tests shall be borne by the contractor.

5. SAND FOR MAKING MORTAR FOR MASONRY WORK/ PLASTERING WORK

5.1 Sand used for masonry mortar shall conform to IS: 2116. Sand used for plastering shall conform to IS: 1542.

6. ACRYLIC EMULSION PAINT EXTERIOR/INTERIOR

6.1 The weather proof exterior acrylic emulsion paint shall be of approved premium quality either "Weather coat" by Berger or Nerolac Excel or "Weather shield" by ICI Dulux or Snowcryl XT-premium by Snowcem India Ltd. or Jotun Paints/ Asian paints. The interior acrylic emulsion paint shall be of approved premium quality either manufactured by Berger or Dulux or

Nicholson or Jotun Paints/ Asian paints. The coverage shall conform to the manufacture's specification. The colour/ shade shall be as per direction of the Engineer-in-Charge.

7 SYNTHETIC ENAMEL PAINT

7.1 The Synthetic Enamel paint shall be of approved premium quality and shall conform to IS : 2923 (2003). The coverage shall conform to the Manufacturer's specification. The colour / shade shall be as per schedule or as per the directions of Engineer-in-Charge. The paint shall be brought to the site of work by the Contractor in its original containers in sealed condition. The material shall be brought in at a time in adequate quantities to suffice for the whole work or at least a week's work. The materials shall be kept in the joint custody of the Contractor and the Engineer-in-Charge. The empty containers shall not be removed from the site of work till the relevant item of the work has been completed and permission obtained from the Engineer-in-Charge.

7.2 The Contractor shall invariably produce the Test Certificates and Bills with batch number and date, signed by an authorised person of the Manufacturer / Dealer, while seeking final approval of the Engineer-in-Charge for use on the Work.

8 GLAZED TILES

8.1 The tiles shall be of approved make and shall generally conform to IS 15622. They shall be flat, and true to shape and free from blisters crazing, chips, welts, crawling or other imperfections detracting from their appearance. The tiles shall be tested as per IS 13630. Classification and Characteristics of pressed ceramic tiles shall be as per IS 13712. The tiles shall be square or rectangular of nominal size. Table 1,3,5, and 7 of IS 15622 give the modular preferred sizes and table 2,4,6 and 8 give the most common non modular sizes. Thickness shall be specified by the manufacturer. It includes the profiles on the visible face and on the rear side. Manufacturer/ supplier and party shall choose the work size of tiles in order to allow a nominal joint width upto 2mm for unrectified floor tiles and upto 1mm for rectified floor tiles. The joint in case of spacer lug tile shall be as per spacer. The tiles shall conform to table10 of IS 15622 with water absorption 3 to 6% (Group BII). The top surface of the tiles shall be glazed. Glaze shall be either glossy or matt as specified. The underside of the tiles shall not have glaze on more than 5% of the area in order that the tile may adhere properly to the base. The edges of the tiles shall be preferably free from glaze. However, any glaze if unavoidable, shall be permissible on only upto 50 per cent of the surface area of the edges.

8.2 Glazed tiles shall be first quality Johnson make or equal make and shall generally confirm to I.S. Specification. They shall be flat, true to shape and free from cracks, craxing spots, clipped edges and corners. The glazing shall be uniform shade. The tiles shall be of size not less than 300mm x 200mm. It shall have thickness not less than 4mm.

9 CERAMIC FLOOR TILES

9.1 Ceramic floor tiles of first quality Johnson/ Khajaria/ Nitco make or equivalent and shall be conforming to IS specification. They shall be flat, true to shape,

free from cracks, craxing spots, clipped edges and corners. The glazing shall be uniform shade. The tiles shall be of size and thickness as specified.

10 **VITRIFIED FLOORING / SKIRTING TILES**

10.1 Tiles shall be of approved premium quality, Johnson or Khajaria or Asian or Somany or Orient Bell make and of approved colour and shade. The tiles shall be generally conforming to IS:13756/ IS:15622 with water absorption less than 0.08% and having modulus of rupture greater than 500kg/sq.cm & modulus hardness 8.0. The tiles shall be flat, true to shape and free from cracks, crazing spots, clipped edged and corners. The tiles shall be of minimum 600mm x 600mm size and shall have minimum thickness of 10mm.

10.2 The top surface of the tiles shall be glossy/ mat finish / antiskid as specified in the Schedule of quantities and as approved by the Engineer-in-Charge. The underside of the tiles shall be completely free from glazing in order to adhere properly to the base.

10.3 Manufactures test Certificate for water absorption, breaking strength, abrasion resistance and crazing has to be produced by the contractor.

11 **WOOD**

11.1 The timber shall be free from decay, fungal growth, boxed heart, pitch pockets or streaks on the exposed edges, splits and cracks. The timber shall be graded as first grade and second grade on the basis of the permissible defects in the timber as given in Appendix „A" of Chapter 9.0 of CPWD Specification. For both the grades, knots should be avoided over a specified limit.

11.2 Timber used shall be of good quality well seasoned wood. It shall have uniformly coloured and reasonably straight grains and shall be free from dead knots, cracks and shakes, sapwood and defects of any kind. The species of wood shall be as specified in the schedule of items /drawing.

SIGNATURE OF QUOTATIONER

III. DETAILED SPECIFICATIONS FOR ITEMS OF WORKS

1 GENERAL

Except where otherwise specified or authorized by the Engineer-in-Charge, all items of works executed by the contractor shall conform to the latest edition of the Bureau of Indian Standard Specifications and code of practices published by the B.I.S. Where no such specifications or code of practice exists the latest B.S.S. codes of practice or any other equivalent / standard code of practice shall also be considered for adoption. The tenderer while indicating any such specifications shall enclose the full set of the publication so referred and not in extracts. Photostats / Xerox copies in duplicate shall be forwarded which shall not be returned to the contractor. In absence of any specification, the department deserves the right to adopt trade specifications and/or sound engineering practices for the specialized work as may be decided by the Engineer-in-Charge which shall be final, conclusive and binding on the contractor.

2 DISMANTLING/ DEMOLISHING WORKS

2.1 The tenderer shall inspect the site and carry out the required investigation by himself about the present position and condition of the existing structures and assess the difficulties and the work involved in its dismantling and removal. It will be deemed that the tenderer has satisfied himself the condition of the structure and the nature of the work involved for the dismantling and removal and estimated its cost accordingly and port will be in no way responsible for the lack of such knowledge and also consequences thereof to the tenderer. The dismantling shall be done carefully without causing any damage to the remaining portions / structure.

2.2 Cement concrete, existing damaged ceiling, brick masonry work, tile work in floors & roofs etc. are to be dismantled as per the direction of Engineer-in-charge. All the dismantled usable materials shall be stacked at the area pointed out by the Engineer–in–charge and all unusable materials shall be disposed by the contractor.

2.3 All the dismantling works shall be done carefully without causing any damage to the adjacent portion/ existing structure. The unserviceable dismantled/ cut materials shall be disposed off within 6kms of the work site and levelled as directed by the Engineer-in-Charge.

3 REPAIRS TO PLASTER

3.1 The work includes cutting the patch and preparing the wall surface & underside of slabs, beams, sunshades and bonding agent shall be applied before plastering.

3.1.1 Scaffolding

Scaffolding as required for the proper execution of the work shall be erected. If work can be done safely with the ladder or jhoola these will be permitted in place of scaffolding.

3.1.2 Cutting

The mortar of the patch, where the existing plaster has cracked, crumbled or sounds hollow when gently tappe d on the surface, shall be removed. The patch shall be cut out to a square or rectangular shape at position marked on the wall as

directed by the Engineer-in-Charge or his authorized representative. The edges shall be slightly under cut to provide a neat joint.

3.1.3 **Preparation of Surface**

The masonry joints which become exposed after removal of old plaster shall be raked out to a minimum depth of 10 mm in the case of brick work and 20 mm in the case of stone work. The raking shall be carried out uniformly with a raking tool and not with a basuli, and loose mortar dusted off. The surface shall then be thoroughly washed with water, and kept wet till plastering is commenced. In case of concrete surfaces, the same shall be thoroughly scrubbed with wire brushes after the plaster had been cut out and pock marked.

3.1.4 **Application of Plaster**

Cement plastering shall be with the grade of mortar and of thickness specified in the schedule. For external work and under coat work, the fine aggregate shall conform to grading IV. For finishing coat work the fine aggregate conforming to grading zone V shall be used.

3.1.5 Ceiling plaster shall be completed before commencement of wall plaster. Plastering shall be started from the top and worked down towards the floor. All putlog holes shall be properly filled in advance of the plastering as the scaffolding is being taken down. To ensure even thickness and a true surface, plaster about 15 × 15 cm shall be first applied, horizontally and vertically, at not more than 2 metres intervals over the entire surface to serve as gauges. The surfaces of these gauged areas shall be truly in the plane of the finished plaster surface. The mortar shall then be laid on the wall, between the gauges with trowel. The mortar shall be applied in a uniform surface slightly more than the specified thickness. This shall be brought to a true surface, by working a wooden straight edge reaching across the gauges, with small upward and side ways movements at a time. Finally the surface shall be finished off true with trowel or wooden float according as a smooth or a sandy granular texture is required. Excessive troweling or over working the float shall be avoided. All the corners shall be rounded off to a radius of 25 mm unless otherwise specified.

3.1.6 Where smooth finishing is specified in the schedule the plastering shall be floated over with neat cement slurry using 2.2 kg of cement per square metre immediately after the final coat of plastering and rate quoted for plastering shall include cost of this finishing work.

3.1.7 When suspending work at the end of the day, the plaster shall be left, cut clean to line both horizontally and vertically. When recommencing the plastering, the edge of the old work shall be scrapped cleaned and wetted with cement slurry before plaster is applied to the adjacent areas, to enable the two to properly join together. Plastering work shall be closed at the end of the day on the body of wall and not nearer than 15 cm to any corners or arrises. It shall not be closed on the body of the features such as plasters, bands and cornices, nor at the corners of arrises. Horizontal joints in plaster work shall not also occur on parapet tops and copings as these invariably lead to leakages. The plastering and finishing shall be completed within

half an hour of adding water to the dry mortar. No portion of the surface shall be left out initially to be patched up later on. The plastering and finishing shall be completed within half an hour of adding water to the dry mortar.

3.1.8 The plastered surface on which glazed tiles or other similar type of finishing are to be provided subsequently shall not be finished smooth but shall be scarified for forming a base for providing the final surface finish as required.

3.1.9 The surface shall be finished even and flush and matching with the old surrounding plaster. All roundings necessary at junctions of walls, ceilings etc. shall be carried out in a tidy manner..All dismantled mortar & rubbish etc. shall be disposed off within 24 hours from its dismantling promptly as directed by the Engineer-in-Charge

3.1.10 **Curing**

6 Curing shall be started as soon as the plaster has hardened sufficiently not to be damaged when watered. The plaster shall be kept wet for a period of at least 7 days. During this period, it shall be suitably protected from all damages at the contractor‟s expense by such means as the Engineer-in-Charge may approve. The dates on which the plastering is done shall be legibly marked on the various sections plastered so that curing for the specified period thereafter can be watched.

3.1.11 **Finish**

The plaster shall be finished to a true and plumb surface and to the proper degree of smoothness as required. The work shall be tested frequently as the work proceeds with a true straight edge not less than 2.5 m long and with plumb bobs. All horizontal lines and surfaces shall be tested with a level and all jambs and corners with a plumb bob as the work proceeds.

3.1.12 **Precaution**

Any cracks which appear in the surface and all portions which sound hollow when tapped, or are found to be soft or otherwise defective, shall be cut out in rectangular shape and redone as directed by the Engineer-in-Charge.

i. When ceiling plaster is done, it shall be finished to chamfered edge at an angle at its junction with a suitable tool when plaster is being done. Similarly when the wall plaster is being done, it shall be kept separate from the ceiling plaster by a thin straight groove not deeper than 6 mm drawn with any suitable method with the wall while the plaster is green.

ii. (ii) To prevent surface cracks appearing between junctions of column/beam and walls, 150 mm wide chicken wire mesh should be fixed with U nails 150 mm centre to centre before plastering the junction. The plastering of walls and beam/column in one vertical plane should be carried out in one go. For providing and fixing chicken wire mesh with U nails payment shall be made separately.

3.1.13 The rate shall include all labour and materials including scaffolding, plastering of jambs, sills, soffits or opening, providing grooves at edge of sunshade, curing etc. complete. required for completion of work including lead as described in the item for disposal of old dismantled plaster /material. Measurement of the work under this head shall be made on the basis of the area of work done.

3.1.14 **Protective Measure**

Doors, windows, floors, articles of furniture etc. and such other parts of the building shall be protected from being splashed upon. Splashing and droppings, if any, shall be removed by the contractor at his own cost and the surface cleaned. Damages, if any, to furniture or fittings and fixtures shall be recoverable from the contractor.

3.1.15 **Measurements**

Length and breadth shall be measured correct to a cm. The area shall be calculated in square metre correct to two places of decimal. Patches below 0.05 square metre in area shall not be measured for payment. Pre-measurements of the patches to be plastered shall be recorded after the old plaster has been cut and wall surface prepared.

3.1.16 The rate shall include the cost of all labour and materials involved in all the operations described above

4 SCRAPPING & CLEANING OLD PAINTED SURFACE

4.1 All loose particles and scales shall be scrapped off and holes in plaster as well as patches of less than 50 cm area shall be filled up with mortar of same mix. The surface shall then be cleaned with water jetting if required and allowed to dry for at least 48 hours before painting.

4.2 Whenever scaffolding is necessary, it shall be erected on double supports tied together by horizontal pieces, over which scaffolding planks shall be fixed.

5 CEMENT PLASTERING

5.1 Cement plastering shall be with the grade of mortar and of thickness specified in the schedule. The surface to be plastered shall be thoroughly cleaned and kept wet for 4 hours before plastering.

5.2 All the corners shall be rounded off to a radius of 25 mm unless otherwise specified.

5.3 Where smooth finishing is specified in the schedule the plastering shall be floated over with neat cement slurry using 2.2 kg of cement per square metre immediately after the final coat of plastering and rate quoted for plastering shall include cost of this finishing work.

5.4 The plastered surface on which glazed tiles or other similar type of finishing are to be provided subsequently shall not be finished smooth but shall be scarified for forming a base for providing the final surface finish as required.

5.5 The surface shall be cured for 7 days.

5.6 The rate shall include all labour and materials including scaffolding, plastering of jambs, sills, soffits or opening, providing grooves at edge of sunshade, curing etc. required for completion of work. Measurement of the work under this head shall be made on the basis of the area of work done

6 PROVIDING FLOORING WITH CERAMIC TILES

6.1 The tiles shall be set in cement mortar 1:4 (1 cement : 4 sand) of average 20mm thick laid to required level/ slope. Before laying cement mortar, the concrete surface shall be scrubbed with wire brush, all loose particles, foreign matters etc. shall be removed and the surface shall be made clean. Any undulations in the concrete shall be chipped off or made good with additional concrete of the same grade used for the under layer. If the surface where flooring is to be laid is an existing old one, the surface shall be chipped well before laying the cement mortar. The surface thus prepared shall be wetted and smeared with a coat of cement slurry using cement at the rate of 2.2 kg/m2 of area just before the application of the mortar, so as to get good bond between base course concrete and plastering. For fixing tiles to mortar, neat cement slurry of honey like consistency using cement at the rate of 3.3 kg./m2 shall be smeared on top of mortar bed. The joints between the tiles shall be uniform and of minimum thickness.

6.2 For fixing tiles to the cement mortar, neat cement slurry of honey like consistency using cement at the rate of 3.30 kg/m2 shall be smeared on top of the mortar bed. The joints between the tiles shall be uniform and minimum thickness.

6.3 After laying the tiles, the surplus cement grout along the joints shall be cleaned off. The day after the tiles are laid, all joints shall be cleaned with wire brush to a depth of 5mm and pointed with coloured tile jointing powder.

6.4 When the floor is ready to use, the same shall be washed clean and dried with soft cloth or linen. If any tile is disturbed or damaged, it shall be re-fitted or replaced and properly jointed and pointed.

6.5 Measurement of the work under this head shall be made on the basis of the area of work done and rate quoted shall include the cost of all labour, materials, scaffolding etc. required for completion of the work. The payment for levelling the floor with cement mortar will be made separately.

7 PROVIDING AND FIXING WASH HAND BASIN

7.1 Washbasin shall be fixed over on galvanized iron rag bolt, embeded in M-15 grade cement concrete in wall. Each basin shall be provided with 32mm dia chromium plated (CP) waste coupling and a 32mm dia PVC waste pipe and one number approved quality CP pillar tap. The cast iron brackets shall be painted with one coat of primer and two coats of synthetic enamel paint. The work shall be carried out as per the directions of the Engineer-in-charge. Water connections shall be done under separate item.

7.2 Measurement of the work under this head shall be made on the basis of the area of work done and rate shown in the schedule shall include the cost of all labour, materials, etc. including mortar bed, required for completion of work.

8 BRICK MASONRY

8.1 Brick masonry shall conform to IS: 2212. All bricks shall be thoroughly soaked in water for at least 6 hours before use. Brickwork shall not be raised more than 14 courses per day.

8.2 The grade of mortar shall be as specified in the Schedule of Quantities.

8.3 Joints shall be restricted to a thickness of 10mm unless otherwise required

and shall be squarely raked to a depth of 12mm while the mortar is still wet and brushed.

8.4 Curing shall be done for 7 days.

8.5 Payment for brick masonry shall be made on cubic metre basis irrespective of thickness. The rate shall include all labour and materials including scaffolding.

9 WATER THINNABLE PRIMER COAT

9.1 Primer coat shall be preferably applied by brushing and not by spraying.

9.2 Preparation of the Surface

9.3 The surface shall be thoroughly cleaned of dust, old white or colour wash by washing and scrubbing. The surface shall then be allowed to dry for at least 48 hours. It shall then be sand papered to give a smooth and even surface. Any unevenness shall be made good by applying Putty made of Plaster of Paris mixed with water, on the entire surface including filling up the undulations and then sand papering the same after it is dry.

9.4 Application

The water thinnable primer shall be applied with a brush on the clean dry and smooth surface. Horizontal strokes shall be given first and vertical strokes shall be applied immediately afterwards. This entire operation will constitute one coat. The surface shall be finished as uniformly as possible leaving no brush marks. It shall be allowed to dry for at least 48 hours, before emulsion Paint is applied.

9.5 Measurements of the work under this head shall be made on the basis of the area work done and the rate quoted shall include the cost of labour, materials scaffoldings etc. required for the completion of the work.

10 WOOD WORK

10.1 Workmanship for the woodwork shall be good and conforming to the satisfaction of the Engineer-in-Charge.

10.2 Scantlings shall be accurately planed smooth to the full dimensions and rebates, roundings, mouldings etc. as per drawings. Patching or plugging is not allowed.

10.3 Joints shall be simple, neat, and strong without wedging / filling and pinned with teak/bamboo pins.

10.4 All wood works shall be brought to the site and approved by the Engineer-in-Charge before it is painted or oiled. The wood works brought to the site after applying painting, but without obtaining prior approval from the Engineer-in-charge shall be rejected. All concealed timber surfaces and portions of timber butting against wall and lintel shall receive one coat of primer and 2 coats of coal tar or bituminous paint.

10.5 Frame shall be fixed to walls using M.S clamps as per schedule of fittings. The M.S clamps shall receive two coats of coal tar or bituminous paint before its embedment in concrete. In case of door frames without sills, vertical members shall be buried in the floor at least 40 mm deep.

10.6 Door frames wherever M.S clamps could not be provided, have to be fixed by using M.S corkscrew of 12mm x 100mm by drilling, plugging etc. No

extra payment shall be made for this work.

10.7 Glazing shall be with good quality glass of thickness specified in the drawing. The glass panes shall be fixed by teak wood beading. A thin layer of approved quality readymade putty shall be applied between glass panes and sash bar / frames and glass panes and beading.

10.8 Fittings specified in the schedule shall be of approved quality / type. All fixtures / fittings shall be got approved by the Engineer-in-Charge before its use on work.

11 PAINTING-GENERAL

11.1 Commencing Work

Painting shall not be started until the Engineer-in-Charge has inspected the items to be used, satisfied himself about their proper quality and given his approval to commence the painting work with the approved materials. Painting of external surface shall not be done in adverse weather condition like hail storm and dust storm. Painting, except the priming coat, shall generally be taken in hand after practically finishing all other building works. The rooms should be thoroughly swept out and the entire building cleaned up, at least one day in advance of the Paint work being started.

11.2 **Preparation of Surface**

The surface shall be thoroughly cleaned and dusted off. All rust, dirt, scales, smoke splashes, mortar droppings and grease shall be thoroughly removed before painting is started. The prepared surface shall have received the approval of the Engineer-in-Charge after inspection, before painting is commenced.

11.3 **Application**

11.3.1 Before pouring into smaller containers for use, the Paint shall be stirred thoroughly in its containers, when applying also, the Paint shall be continuously stirred in the smaller containers so that its consistency is kept uniform.

11.3.2 The painting shall be laid on evenly and smoothly by means of crossing and laying off, the latter in the direction of the grains of wood. The crossing and laying off consists of covering the area over with Paint, brushing the surface hard for the first time over and then brushing alternately in opposite direction, two or three times and then finally brushing lightly in a direction at right angles to the same. In this process, no brush marks shall be left after the laying off is finished. The full process of crossing and laying off will constitute one coat.

11.3.3 No left over Paint shall be put back into the stock tins. When not in use, the containers shall be kept properly closed.

11.3.4 No hair marks from the brush or clogging of Paint puddles in the corners of panels, angles of mouldings etc. shall be left on the work.

11.3.5 In painting doors and windows, the putty round the glass panes must also be painted but care must be taken to see that no Paint stains etc. are left on the glass. Tops of shutters and surfaces in similar hidden locations shall not be left out in painting. However, bottom edge of the shutters where the painting is not practically possible, need not be done

nor any deduction on this account will be done but two coats of primer of approved make shall be done on the bottom edge before fixing the shutters.

11.3.6 On painting steel work, special care shall be taken while painting over bolts, nuts, rivets overlaps etc.

11.3.7 The additional specifications for primer and other coats of Paints shall be as according to the detailed specifications under the respective headings.

11.3.8 **Brushes and Containers**

After work, the brushes shall be completely cleaned of Paint and linseed oil by rinsing with turpentine. A brush in which Paint has dried up is ruined and shall on no account be used for painting work. The containers when not in use, shall be kept closed and free from air so that Paint does not thicken and also shall be kept safe from dust. When the Paint has been used, the containers shall be washed with turpentine and wiped dry with soft clean cloth, so that they are clean, and can be used again.

12 CEMENT PRIMER COAT

12.1 Cement primer coat is used as a base coat on wall finish of cement plaster before Paints are applied on them. The cement primer is composed of a medium and pigment which are resistant to the alkalies present in the cement in wall finish and provides a barrier for the protection of subsequent coats of Paints.

12.2 Primer coat shall be preferably applied by brushing and not by spraying. Hurried priming shall be avoided particularly on absorbent surfaces. New plaster patches in old work should also be treated with cement primer before applying Paints etc.

12.3 **Preparation of the Surface**

The surface shall be thoroughly cleaned of dust, old white or colour wash by washing and scrubbing. The surface shall then be allowed to dry for at least 48 hours. It shall then be sand papered to give a smooth and even surface. Any uneveness shall be made good by applying putty, made of plaster of paris mixed with water on the entire surface including filling up the undulations and then sand papering the same after it is dry.

12.4 **Application**

The cement primer shall be applied with a brush on the clean dry and smooth surface. Horizontal strokes shall be given first and vertical strokes shall be applied immediately afterwards. This entire operation will constitute one coat. The surface shall be finished as uniformly as possible leaving no brush marks. It shall be allowed to dry for at least 48 hours, before oil emulsion Paint is applied.

13 EXTERIOR PAINTING ON WALL

13.1 This paint shall be brought to the site of work by the Contractor in its

original containers in sealed condition. The material shall be brought in at a time in adequate quantities to suffice for the whole work or at least a fortnight's work. The materials shall be kept in the joint custody of the Contractor and the Engineer-in-Charge. The empty containers shall not be removed from the site of work till the relevant item of work has been completed and permission obtained from the Engineer-in-Charge.

13.2 **Preparation of Surface**

For new work, the surface shall be thoroughly cleaned off all mortar dropping, dirt dust, algae, fungus or moth, grease and other foreign matter of brushing and washing, pitting in plaster shall make good, surface imperfections such as cracks, holes etc. should be repaired using white cement. The prepared surface shall have received the approval of the Engineer-in-Charge after inspection before painting is commenced.

13.3 Before pouring into smaller containers for use, the paint shall be stirred thoroughly in its container, when applying also the paint shall be continuously stirred in smaller containers so that its consistency is kept uniform. Dilution ratio of paint with potable water can be altered taking into consideration the nature of surface climate and as per the recommended dilution given by manufacturer. In all cases, the manufacturer's instructions & directions of the Engineer-in-Charge shall be followed meticulously. The lids of paint drums shall be kept tightly closed when not in use, as by exposure to atmosphere, the paint may thicken and also dust may accumulate.

13.4 Paint shall be applied with a brush on the cleaned and smooth surface. Horizontal strokes shall be given, First and vertical strokes shall be applied immediately afterwards. This entire operation will constitute one coat. The surface shall be finished as uniformly as possible leaving no brush marks.

13.5 The specifications in respect of scaffolding, protective measures, measurements and rate shall be as described under 3 above.

13.6 **WALL PAINTING WITH PREMIUM ACRYLIC INTERIOR /EXTERIOR EMULSION PAINT**

13.7 The wall surface shall be prepared as specified in Clause 11.2 above.

13.8 Application: The number of coats shall be as stipulated in the item. The Paint will be applied in the usual manner with brush, spray or roller. The Paint dries by evaporation of the water content and as soon as the water has evaporated the film gets hard and the next coat can be applied. The time of drying varies from one hour on absorbent surfaces to 2 to 3 hours on non-absorbent surfaces. The thinning of emulsion is to be done with water and not with turpentine. Thinning with water will be particularly required for the under coat which is applied on the absorbent surface. The quantity of water to be added shall be as per manufacturer's instructions. The surface on finishing shall present a flat velvety smooth finish. If necessary more coats will be applied till the surface presents a uniform appearance.

13.9 **Precautions**

(a) Old brushes if they are to be used with emulsion Paints, should be completely dried of turpentine or oil Paints by washing in warm soap water.

Brushes should be quickly washed in water immediately after use and kept immersed in water during break periods to prevent the Paint from hardening on the brush.(b) In the preparation of wall for plastic emulsion painting, no oil base putties shall be used in filling cracks, holes etc. (c) Splashes on floors etc. shall be cleaned out without delay as they will be difficult to remove after hardening. (d) Washing of surfaces treated with emulsion Paints shall not be done within 3 to 4 weeks of application.

13.10 **Measurements**

The length and breadth shall be measured correct to a cm. Measurements of the work under this head shall be made on the basis of the area of work done and the rate quoted shall include the cost of labour, materials scaffoldings etc. required for the completion of the work.

13.11 **APPLYING SYNTHETIC ENAMEL PAINT**

13.11.1 The surface shall be thoroughly cleaned off all dirt, rust, dust, grease etc. with wire brush, sand paper etc., and be made perfectly clean and dry while painting.

13.11.2 The number of coats shall be as per schedule. Successive coats shall be applied only on the next day after rubbing with the finest grade of wet abrasive paper and dusting of the loose particles. The primers and paints used shall be of approved quality.

13.12 Measurements of the work under this head shall be made on the basis of the area of work done and rate quoted shall include the cost of surface preparation, materials, labour, scaffolding etc. required for the completion.

14 FIBRE GLASS REINFORCED PLASTIC (FRP) DOOR FRAMES

14.1 Door Frames shall be three legged of cross section 90 mm x 45 mm having single rebate of size 32 mm x 15 mm to receive shutter of 30 mm thickness. The frame shall be made of laminate of thickness of 2 mm and shall be filled with wooden blocks of exterior grade MDF or seasoned and treated hard wood inside the laminate in all the three legs of the frame. The frame to be moulded by either hand lay up or resin transfer moulding process. The process shall consist of laying gelcoat at 1000 gms./m2and laid over with layer of FRP Mat (CSM mat) gelcoat and FRP (CSM Mat) are defined in IS 14856. The CSM mat shall be bonded with Isophatholic resin in the ratio not less than 1:2 (One part of Mat to two parts of Isopathlic resin and fillers & additives) by weight. The edge shall be sealed with gelcoat and FRP mat to obtain smooth finish. Sufficient roving shall be laid in the corner to have smooth curve while laying the CSM mat.

14.2 FRP door shall be manufactured as per specifications laid down in IS 14856, nomenclature of items & direction of Engineer-in-Charge.

14.3 Tolerance

Tolerance of size of frame to be + 2 mm and on size of rebate to be + 1 mm.

14.4 **Finish**

The surface of the moulded frame shall be free from any visible defects such as small pores, crazing, blistering, wrinkling, impurities, defective impregnation, colour blots and aggregate defects, as mentioned in IS 14856. Scattered pin holes duly repaired and finished by applying resin and not

noticeable shall be acceptable. Frame laminate shall be flat and shall have smooth and level surface. Laminate shall be finished in colour & shade as approved by Engineer-in-Charge.

14.5 **Fixing of Frame**

The frames are to be fixed in prepared openings in the walls. All civil work and tiling should be completed before the fixing of the frames. The frames are to be fixed directly on the plastered wall. In case tiling is to be done in the place the frames are to be fitted, a 50 mm strip should be left untiled at the location where the frames are to be fitted. The frames are erected in the prepared opening such that the vertical members of the door frame are embedded 50 mm in the floor. The frame shall be fitted truly in plumb. A minimum of three anchor bolts or screws of size 65/100 shall be used to fix each vertical member. One bolt shall be fixed at 200 mm from the top member and one bolt shall be fixed at 200 mm from the floor. The third anchor bolt shall be fixed in the centre. The top horizontal member shall be fixed using two 65/100 size anchor bolts or screws at a distance of 200 mm from both the corners.

14.6 **Measurements**

The outer length of the vertical and horizontal members of door frame shall be measured in running metres including embedded length in floor corrected upto a cm.

14.7 **Rate**

The rate includes the cost of the materials and labour involved in all the operations described above. The cost of anchor bolts or screws for joining the frame is included in the rate. Any other hardware, which may be required, shall be paid for separately

15 FIBRE GLASS REINFORCED PLASTIC (F.R.P.) SHUTTERS

15.1 F.R.P. Shutters shall be manufactured conforming to the specifications as per IS 14856 and nomenclature of item & direction of Engineer-in-Charge.

15.2 Blocks of any seasoned hardwood of bulk density not less than 450 kg./m3 at 12 per cent moisture content or any other material of sufficient thickness and length shall be provided inside the shutter at suitable place to hold fittings and fixtures such as aldrops, tower bolt, handle, sliding door bolt, mortice lock etc. Blocks for hinges shall be provided at three locations, unless otherwise specified by the purchaser. One at the centre and other two at 200 mm from the top and the bottom of the shutter. Blocks shall be provided at predetermined places in the shutter so as to fix hinges mortice locks, tower bolts, aldrops, door closures, etc. The finished surface shall be buffed and polished with wax.

15.3 **Location of Fittings and Accessories**

The lock rail of door shutters shall be so placed that is centre line is at a height 850 + 5 mm from the bottom of the shutter. Door shutter shall be fixed to the frame with three hinges, unless otherwise specified by the purchaser, of the type specified. These locations shall be, one at centre and other two at 200 mm from the top and the bottom of the shutter, where blocks have already been provided and suitable indication by depressing the profile has been made.

Screws for fixing the hinges shall be screwed in with screwdrivers & not hammered. The length of screw should be 8/30 mm. The hinges used shall be stainless steel or aluminium.

15.4 **Finish**

The surface of the moulded frame shall be free from any visible defects such as small pores, crazing, blistering, wrinkling, impurities, defective impregnation, colour blots and aggregate defects, as mentioned in IS 14856. Scattered pin holes duly repaired and finished by applying resin and not noticeable shall be acceptable. Frame laminate shall be flat and shall have smooth and level surface. Laminate shall be finished in colour & shade as approved by Engineer-in-Charge.

15.5 **Fixing of Shutters**

Door shutter shall be side hung on three bolt hinges of size 100 mm, one at the centre and the other two at 200 mm from the top and bottom of the shutter. The flat of the hinges shall be neatly counter sunk in to the recesses cut out to the exact dimensions of the hinge flap. The door shall be drilled on the thickness to fit hinges. Screws for fixing the hinges shall be screwed in with screwdrivers and not hammered. The length of the screws should be 8 mm/30 mm. The hinges used should be of stainless steel.

15.6 **Tolerance**

The tolerance on the width and the height of the door shall be + 5 mm and the tolerance on the nominal thickness of the door shall be + 2 mm.

15.7 **Fittings**

Fittings shall be provided as per schedule of fittings decided by Engineer-in-Charge. In moisture prone areas M.S. fittings and screws should not be used. Hardware such as handles, tower bolt, stopper, buffer etc. should be directly screwed (not pre-drilled) and fitted on the door.

15.8 **Measurements**

Length and width of the shutters shall be measured to the nearest cm in closed position covering the rebates of the frames but excluding the gap between the shutter and the frame. Area is calculated to the nearest 0.01 sqm.

15.9 **Rate**

The specified rat*e* include the cost of the door shutter and labour involved in fixing of the shutter including fittings & fixtures on the door shutter, hinges & screws as provided.

16 SPECIFICATION FOR LABOUR SUPPLY

16.1 Skilled labourers supplied shall be well trained & having good health to carryout works.

16.2 Unskilled labourers supplied shall have good health for carrying out all type of unskilled works.

16.3 The labourers supplied shall have valid Identity Cards issued by the Govt. of India viz; Electoral ID card or Aadhar card.

16.4 The labourers supplied shall be engaged for various civil construction/ maintenance works under various sub divisions at Cochin Port Authority.

16.5 A register for the labourers posted shall be maintained by the contractor

specifying the nature of work done by each labourer on each day. The register shall be signed by the respective Sub-Divisional Officers after completion of each days work and shall be counter signed by the Engineer-in-Charge after completing of the whole work.

16.6 The rate stipulated in the Schedule is for supply of labour for one day of 8 hours.

17 SCHEDULE OF FITTINGS FOR DOORS, WINDOWS AND VENTILATORS

All fittings should be of 1st class quality and got approved by the Engineer- in - charge. The numbers in each and its use will be decided by the Engineer- in - charge according to the location and number of leaves, the doors, windows and ventilators have.

IRON FITTINGS

DOORS

a. Butt hings: - 125mm x 75mm heavy type iron butt hinges of approved quality with 40 mm nettle- folds brass screws to suit.
b. 30 mm heavy type tower bolts of approved quality with 25 mm nettle -folds brass screws to suit at top.
c. 15 cms heavy type iron tower bolts of approved quality with 25mm nettle-folds brass screws at bottom 79
d. G.I tubes for fixing in the floor 50 mm long to suit the tower bolts.
e. 22.5 mm heavy type tower bolts of approved quality with 25 mm nettle -folds brass screws to suit.

WINDOWS: -

a. 100 mm x 60 mm heavy type brass butt hinges of approved quality with 40 mm nettle-folds brass screws to suit.
b. 15 cms heavy type brass tower bolts of approved quality with 25 mm nettle-folds brass screws to suit at top and bottom.
c. G.I tubes 50 mm long to suit the tower bolt.
d. 22.5 cms iron hooks and eyes with fixing plate of approved quality with 25 mm nettle-folds brass screws to suit.

VENTILATORS: -

a. 62 mm x 6mmx 6mm brass sash centers fixed with 25 mm nettle-folds brass screws to suit
b. Iron rings 25mm size fixed with 2 nos. nettle- folds brass screws to suit with necessary length of G.I chain.

NOTE: All screws will be of only brass nettle- folds wherever not mentioned for works under the contract.

SIGNATURE OF QUOTATIONER

ANNEXURE-I

COCHIN PORT AUTHORITY

REPAIR & MAINTENANCE WORKS AT NORTH TANKER BERTH ADMINISTRATION BUILDING

UNDERTAKING REGARDING EPF AND ESI REGISTRATION

I/ We, M/s…….. (Name & Address of the tenderer) solemnly affirm and undertake that I/ We do not have the required number of employees for taking registration under EPF Organisation and ESI Corporation. I/ We also undertake that I/ We take the full responsibility for all the consequences arising due to the above and indemnify CoPA officials for any actions taken in this regard

SIGNATURE OF QUOTATIONER