

**IRRIGATION DEPARTMENT  
GOVERNMENT OF SINDH**



**BIDDING DOCUMENT FOR**

- A. O&M / M&R TO TUBEWELLS (NEW & OLD COMPONENT)
- B. O&M / M&R TO OTHER BUILDINGS
- C. O & M / M & R TO GOVERNMENT VEHICLES
- D. PRINTING & BIDDING OF OFFICE DOCUMENTS
- E. SUPPLYING & FIXING COMPUTER SPARE PARTS, OFFICE STATIONERY, PRINTING & BIDDING OF OFFICE DOCUMENTS
- F. DE-WEEDING / DE-SILTING OF DRAINAGE NETWORK INCLUDING RAISING & STRENGTHENING OF BANKS THROUGH HYDRAULIC EXCAVATOR MACHINE (WHEEL / CHAIN TYPE)

**EXECUTIVE ENGINEER DRAINAGE DIVISION  
L.B.O.D SHAHEED BENAZIRABAD**

# **SPPRA BIDDING DOCUMENT**

**STANDARD BIDDING DOCUMENT**

**PROCUREMENT OF WORKS**

*(For Contracts Costing up to Rs 2.5 MILLION)*

*Standard Bidding Document* is intended as a model for admeasurements (Percentage Rate/unit price for unit rates in a Bill of Quantities) types of contract. The main text refers to admeasurements contracts.

# OFFICE OF THE EXECUTIVE ENGINEER DRAINAGE DIVISION L.B.O.D SHAHEED BENAZIRABAD.

## NOTICE INVITING TENDERS / QUOTATIONS

Sealed quotations are invited from the Contractors / Suppliers under Sindh Public Procurement Regulatory Authority Rules-2010 (Amended 2013), for supplying material / Job work for O&M / M&R to Tubewells, Other Buildings, Repair of Government Vehicles, Printing & Binding of Office Documents, Computer Spare Parts & Office Stationery & De-Weeding / De-Silting of Drains.

Sr. No.	Item	Call Deposit	Tender Fee
<b>A.</b>	<b>O&amp;M / M&amp;R to Tubewells.</b>	Rs. 100,000/-	Rs. 1,000/-
	a) Supplying & Fixing Pump Parts, Motor Control Unit / Motor Parts of Scavenger Wells.		
	b). Supplying & Fixing Panel Parts, Pump Parts, Motor Control Unit / Motor Parts of Drainage Wells		
	c) Supplying & Fixing Pump Parts, Motor Parts & Rewinding of Burnt Electric Motor (Old Component)		
<b>B.</b>	<b>O&amp;M / M &amp; R to other Buildings</b>		
	a) Supplying & Fixing Sanitary Fittings, Electric Parts, Repair to Water Supply Sewerage Line & Service Road		
<b>C.</b>	<b>O&amp;M / M&amp;R to Government Vehicles</b>		
	a). Repair of Government Vehicles (Suzuki Jeep) 03 Nos.		
	b) Repair of Government Vehicle Jeep (Mitsubishi Pajero) 01 No.		
<b>D.</b>	Printing & Biding of Office Documents		
<b>E.</b>	Supplying & Fixing Computer Spare Parts, Office Stationery, Printing & Biding of Office Documents		
<b>F.</b>	D-Weeding / De-Silting of Drainage Network including raising & strengthening of Banks through Hydraulic Excavator Machine (Wheel / Chain Type)		

Tenders shall be issued upto 16.12.2015 on payment of Rs. 1,000/- (Non refundable) and will be received upto 16.12.2015 at 11.00 A.M. The Tenders will be opened on the same date @ 12.00 Noon, in presence of Government Contractors / Firms or their authorized agent / representative.

The Contractors / Suppliers will have to deposit Earnest money in the shape of call deposit (obtained from any scheduled Bank) amounting to Rs. 100,000/- in the name of Executive Engineer, Drainage Division LBOD, Shaheed Benazirabad. If undersigned is out of the head quarter on the opening date, the tenders shall be opened on the next day.

Non conditional tender / quotations will be accepted.

The undersigned or any competent authority may reject all or any tender / quotation at any time prior to the acceptance of tender / quotation subject to the relevant provision of SPPRA Rules 2010 (amended 2013).

**Executive Engineer  
Drainage Division LBOD  
Shaheed Benazirabad**

C.C to

1. The Secretary to Govt. of Sindh, Irrigation Department Government of Sindh, Karachi.
2. The Secretary Information & Technology Government of Sindh, Karachi.
3. The Director Information (Advertisement), Public Relation Department, Karachi alongwith 07 copies for information & Publication in 03 leading Daily Newspapers i.e. Sindhi, Urdu & English.
4. The Managing Director, Sindh Public Procumbent Regulatory Authority, Karachi with request to up hoist the NIT on SPPRA web site.
5. The Chief Engineer, Irrigation Development in Sindh, Hyderabad.
6. The Project Director, SCARP (N.R), Shaheed Benazirabad.

## Instructions to Bidders/ Procuring Agencies.

### General Rules and Directions for the Guidance of Contractors.

This section of the bidding documents should provide the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Agency. It should also give information on bid submission, opening and evaluation, and on the award of contract.

Matters governing the performance of the Contract or payments under the Contract, or matters affecting the risks, rights, and obligations of the parties under the Contract are included as Conditions of Contract and *Contract Data*.

The *Instructions to Bidders* will not be part of the Contract and will cease to have effect once the contract is signed.

1. All work proposed to be executed by contract shall be notified in a form of Notice Inviting Tender (NIT)/Invitation for Bid (IFB) hoisted on website of Authority and Procuring Agency and also in printed media where ever required as per rules.

NIT must state the description of the work, dates, time and place of issuing, submission, opening of bids, completion time, cost of bidding document and bid security either in lump sum or percentage of Estimated Cost/Bid Cost. The interested bidder must have valid NTN also.

2. Content of Bidding Documents must include but not limited to: Conditions of contract, Contract Data, specifications or its reference, Bill of Quantities containing description of items with scheduled/item rates with premium to be filled in form of percentage above/ below or on item rates to be quoted, Form of Agreement and drawings.

3. **Fixed Price Contracts:** The Bid prices and rates are fixed during currency of contract and under no circumstance shall any contractor be entitled to claim enhanced rates for any item in this contract.

4. The Procuring Agency shall have right of rejecting all or any of the tenders as per provisions of SPP Rules 2010.

5. **Conditional Offer:** Any person who submits a tender shall fill up the usual printed form stating at what percentage above or below on the rates specified in Bill of Quantities for items of work to be carried out: he is willing to undertake the work and also quote the rates for those items which are based on market rates. Only one rate of such percentage, on all the Scheduled Rates shall be framed. Tenders, which propose any alternative in the works specified in the said form of invitation to tender or in the time

allowed for carrying out the work, or which contain any other conditions, will be liable to rejection. No printed form of tender shall include a tender for more than one work, but if contractor wish to tender for two or more works, they shall submit a separate tender for each.

The envelope containing the tender documents shall refer the name and number of the work.

6. All works shall be measured by standard instruments according to the rules.
7. Bidders shall provide evidence of their eligibility as and when requested by the Procuring Agency.
8. Any bid received by the Agency after the deadline for submission of bids shall be rejected and returned unopened to the bidder.
9. Prior to the detailed evaluation of bids, the Procuring Agency will determine whether the bidder fulfills all codal requirements of eligibility criteria given in the tender notice such as registration with tax authorities, registration with PEC (where applicable), turnover statement, experience statement, and any other condition mentioned in the NIT and bidding document. If the bidder does not fulfill any of these conditions, it shall not be evaluated further.
10. Bid without bid security of required amount and prescribed form shall be rejected.
11. Bids determined to be substantially responsive shall be checked for any arithmetic errors. Arithmetical errors shall be rectified on the following basis;
  - (A) **In case of schedule rates**, the amount of percentage quoted above or below will be checked and added or subtracted from amount of bill of quantities to arrive the final bid cost.
  - (B) **In case of item rates**, .If there is a discrepancy between the unit rate and the total cost that is obtained by multiplying the unit rate and quantity, the unit rate shall prevail and the total cost will be corrected unless in the opinion of the Agency there is an obvious misplacement of the decimal point in the unit rate, in which case the total cost as quoted will govern and the unit rate corrected. If there is a discrepancy between the total bid amount and the sum of total costs, the sum of the total costs shall prevail and the total bid amount shall be corrected.
  - (C) Where there is a discrepancy between the amounts in figures and in words, the amount in words will govern.

## BIDDING DATA

- (a). **Name of Procuring Agency:-** Executive Engineer, Drainage Division LBOD,  
Shaheed Benazirabad
- (b). **Brief Description of Works:-**
- A. O&M / M&R to Tubewells.
  - B. O&M / M&R to Other Buildings.
  - C. O&M / M&R to Government Vehicles.
  - D. Printing & Binding of Office Documents.
  - E. Supplying & Fixing Computer Spare Parts, Office Stationery, Printing & Binding of Office Documents.
  - F. De-Weeding / De-Silting of Drainage Network including raising & strengthening of Banks through Hydraulic Excavator Machine (Wheel / Chain Type)
- (c). **Procuring Agency's address:-** Housing Society, Near Bilawal Sports Stadium, Shaheed Benazirabad
- (d). **Estimated Cost:-**
- (e). **Amount of Bid Security:-** Rs. 100,000/-
- (f). **Period of Bid Validity (days):-** 90 Days.
- (g). **Security Deposit:-(including bid security):-** Not Applicable  
(in % age of bid amount /estimated cost equal to 10%)
- (h). **Percentage, if any, to be deducted from bills :-** 3% Sales Tax, 7.5% Income Tax,  
0.30% Stamp Duty
- (i). **Deadline for Submission of Bids along with time :-** 16.12.2015 upto 11.00 A.M
- (j). **Venue, Time, and Date of Bid Opening:-** 16.12.2015 at 12.00 Noon
- (k). **Time for Completion from written order of commence: -** 30.06.2016
- (L). **Liquidity damages:-** \_\_\_\_\_ Not Applicable.
- (m). **Deposit Receipt No: Date: Amount:(in words and figures)**

(Executive Engineer/Authority issuing bidding document)

## Conditions of Contract

**Clause – 1: Commencement & Completion Dates of work.** The contractor shall not enter upon or commence any portion or work except with the written authority and instructions of the Engineer-in-charge or of in subordinate-in-charge of the work. Failing such authority the contractor shall have no claim to ask for measurements of or payment for work.

The contractor shall proceed with the works with due expedition and without delay and complete the works in the time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall reckoned from the date on which the order to commence work is given to the contractor. And further to ensure good progress during the execution of the work, contractor shall be bound, in all in which the time allowed for completion of any work exceeds one month, to achieve progress on the prorate basis.

**Clause – 2: Liquidated Damages.** The contractor shall pay liquidated damages to the Agency at the rate per day stated in the bidding data for each day that the completion date is later than the Intended completion date; the amount of liquidated damage paid by the contractor to the Agency shall not exceed 10 per cent of the contract price. Agency may deduct liquidated damages from payments due to the contractor. Payment of liquidated damages does not affect the contractor's liabilities.

### **Clause – 3: Termination of the Contract.**

- (A) Procuring Agency/Executive Engineer may terminate the contract if either of the following conditions exits:-
- (i) contractor causes a breach of any clause of the Contract;
  - (ii) the progress of any particular portion of the work is unsatisfactory and notice of 10 days has expired;
  - (iii) in the case of abandonment of the work owing to the serious illness or death of the contractor or any other cause.
  - (iv) contractor can also request for termination of contract if a payment certified by the Engineer is not paid to the contractor within 60 days of the date of the submission of the bill;
- (B) The Executive Engineer/Procuring Agency has power to adopt any of the following courses as may deem fit:-
- (i) to forfeit the security deposit available except conditions mentioned at A (iii) and (iv) above;
  - (ii) to finalize the work by measuring the work done by the contractor.



(C) In the event of any of the above courses being adopted by the Executive Engineer/Procuring Agency, the contractor shall have:-

- (i) no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advances on account of, or with a view to the execution of the work or the performance of the contract,
- (ii) however, the contractor can claim for the work done at site duly certified by the executive engineer in writing regarding the performance of such work and has not been paid.

Procuring Agency/Engineer may invite fresh bids for remaining work.

**Clause 4: Possession of the site and claims for compensation for delay.** The Engineer shall give possession of all parts of the site to the contractor. If possession of site is not given by the date stated in the contract data, no compensation shall be allowed for any delay caused in starting of the work on account of any acquisition of land, water standing in borrow pits/ compartments or in according sanction to estimates. In such case, either date of commencement will be changed or period of completion is to be extended accordingly.

**Clause –5: Extension of Intended Completion Date.** The Procuring Agency either at its own initiatives before the date of completion or on desire of the contractor may extend the intended completion date, if an event (which hinders the execution of contract) occurs or a variation order is issued which makes it impossible to complete the work by the intended completion date for such period as he may think necessary or proper. The decision of the Executive Engineer in this matter shall be final; where time has been extended under this or any other clause of this agreement, the date for completion of the work shall be the date fixed by the order giving the extension or by the aggregate of all such orders, made under this agreement.

When time has been extended as aforesaid, it shall continue to be the essence of the contract and all clauses of the contract shall continue to be operative during the extended period.

**Clause –6: Specifications.** The contractor shall execute the whole and every part of the work in the most substantial and work-man-like manner and both as regards materials and all other matters in strict accordance with the specifications lodged in the office of the Executive Engineer and initialed by the parties, the said specification being a part of the contract. The contractor shall also confirm exactly, fully and faithfully to the designs, drawing, and instructions in writing relating to the work signed by the Engineer-in-charge and lodge in his office and to which the contractor shall be entitled to have access at such office or on the site of work for the purpose of inspection during office hours and the contractor shall, if he so requires, be entitled at his own expense to make or cause to be made copies of the specifications, and of all such designs, drawings, and instructions as aforesaid.

## **Clause – 7: Payments.**

- (A) **Interim/Running Bill.** A bill shall be submitted by the contractor as frequently as the progress of the work may justify for all work executed and not included in any previous bill at least once in a month and the Engineer-in-charge shall take or cause to be taken the requisite measurements for the purpose of having the same verified and the claim, as far as admissible, adjusted, if possible before the expiry of ten days from the presentation of the bill, at any time depute a subordinate to measure up the said work in the presence of the contractor or his authorized agent, whose countersignature to the measurement list will be sufficient to warrant and the Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.

The Engineer /Procuring Agency shall pass/certify the amount to be paid to the contractor, which he considers due and payable in respect thereof, subject to deduction of security deposit, advance payment if any made to him and taxes.

All such intermediate payment shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the Engineer-in-charge from recoveries from final bill and rectification of defects and unsatisfactory items of works pointed out to him during defect liability period.

- (B) **The Final Bill.** A bill shall be submitted by the contractor within one month of the date fixed for the completion of the work otherwise Engineer-in-charge's certificate of the measurements and of the total amount payable for the works shall be final and binding on all parties.

**Clause – 8: Reduced Rates.** In cases where the items of work are not accepted as so completed, the Engineer-in-charge may make payment on account of such items at such reduced rates as he may consider reasonable in the preparation of final or on running account bills with reasons recorded in writing.

## **Clause – 9: Issuance of Variation and Repeat Orders.**

- (A) Agency may issue a Variation Order for procurement of works, physical services from the original contractor to cover any increase or decrease in quantities, including the introduction of new work items that are either due to change of plans, design or alignment to suit actual field conditions, within the general scope and physical boundaries of the contract.
- (B) Contractor shall not perform a variation until the Procuring Agency has authorized the variation in writing subject to the limit not exceeding the contract cost by of 15% on the same conditions in all respects on which he agreed to do them in the

work, and at the same rates, as are specified in the tender for the main work. The contractor has no right to claim for compensation by reason of alterations or curtailment of the work.

- (C) In case the nature of the work in the variation does not correspond with items in the Bill of Quantities, the quotation by the contractor is to be in the form of new rates for the relevant items of work, and if the Engineer-in-charge is satisfied that the rate quoted is within the rate worked out by him on detailed rate analysis, and then only he shall allow him that rate after approval from higher authority.
- (D) The time for the completion of the work shall be extended in the proportion that the additional work bear to the original contact work.
- (E) In case of quantities of work executed result the Initial Contract Price to be xceeded by more than 15%, and then Engineer can adjust the rates for those quantities causing excess the cost of contract beyond 15% after approval of Superintending Engineer.
- (F) **Repeat Order:** Any cumulative variation, beyond the 15% of initial contract amount, shall be subject of another contract to be tendered out if the works are separable from the original contract.

#### **Clause-10: Quality Control.**

- (A) **Identifying Defects:** If at any time before the security deposit is refunded to the contractor/during defect liability period mentioned in bid data, the Engineer-in-charge or his subordinate-in-charge of the work may instruct the contractor to uncover and test any part of the works which he considers may have a defect due to use of unsound materials or unskillful workmanship and the contractor has to carry out a test at his own cost irrespective of work already approved or paid.
- (B) **Correction of Defects:** The contractor shall be bound forthwith to rectify or remove and reconstruct the work so specified in whole or in part, as the case may require. The contractor shall correct the notified defect within the Defects Correction Period mentioned in notice.
- (C) **Uncorrected Defects:**
  - (i) In the case of any such failure, the Engineer-in-charge shall give the contractor at least 14 days notice of his intention to use a third party to correct a defect. He may rectify or remove, and re-execute the work or remove and replace the materials or articles complained of as the case may be at the risk and expense in all respects of the contractor.

- (ii) If the Engineer considers that rectification/correction of a defect is not essential and it may be accepted or made use of; it shall be within his discretion to accept the same at such reduced rates as he may fix therefore.

**Clause – 11:**

- (A) **Inspection of Operations.** The Engineer and his subordinates, shall at all reasonable times have access to the site for supervision and inspection of works under or in course of execution in pursuance of the contract and the contractor shall afford every facility for and every assistance in obtaining the right to such access.
- (B) **Dates for Inspection and Testing.** The Engineer shall give the contractor reasonable notice of the intention of the Engineer-in-charge or his subordinate to visit the work shall have been given to the contractor, then he either himself be present to receive orders and instructions, or have a responsible agent duly accredited in writing present for that purpose, orders given to the contractor's duly authorized agent shall be considered to have the same force an effect as if they had been given to the contractor himself.

**Clause – 12: Examination of work before covering up.**

- (A) No part of the works shall be covered up or put out of view/beyond the reach without giving notice of not less than five days to the Engineer whenever any such part of the works or foundations is or are ready or about to be ready for examination and the Engineer shall, without delay, unless he considers it unnecessary and advises the contractor accordingly, attend for the purpose of examining and measuring such part of the works or of examining such foundations;
- (B) If any work is covered up or placed beyond the reach of measurement without such notice having been given, the same shall be uncovered at the contractor's expense, and in default thereof no payment or allowance shall be made for such work, or for the materials with which the same was executed.

**Clause – 13: Risks.** The contractor shall be responsible for all risks of loss of or damage to physical property or facilities or related services at the premises and of personal injury and death which arise during and in consequence of its performance of the contract. if any damage is caused while the work is in progress or become apparent within three months of the grant of the certificate of completion, final or otherwise, the contractor shall make good the same at his own expense, or in default the Engineer may cause the same to be made good by other workmen, and deduct the expenses from retention money lying with the Engineer.

**Clause-14: Measures for prevention of fire and safety measures.** The contractor shall not set fire to any standing jungle, trees, bush-wood or grass without a written permit from the Executive Engineer. When such permit is given, and also in all cases when destroying, cutting or uprooting trees, bush-wood, grass, etc by fire, the contractor shall take necessary measures to prevent such fire spreading to or otherwise damaging surrounding property. The contractor is responsible for the safety of all its activities including protection of the environment on and off the site. Compensation of all damage done intentionally or unintentionally on or off the site by the contractor's labour shall be paid by him.

**Clause-15:Sub-contracting.** The contractor shall not subcontract the whole of the works, except where otherwise provided by the contract. The contractor shall not subcontract any part of the works without the prior consent of the Engineer. Any such consent shall not relieve the contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults and neglects of any subcontractor, his agents, servants or workmen as if these acts, defaults or neglects were those of the contractor, his agents' servants or workmen. The provisions of this contract shall apply to such subcontractor or his employees as if he or it were employees of the contractor.

**Clause – 16: Disputes.** All disputes arising in connection with the present contract, and which cannot be amicably settled between the parties, , the decision of the Superintending Engineer of the circle/officer/one grade higher to awarding authority shall be final, conclusive and binding on all parties to the contract upon all questions relating to the meaning of the specifications, designs drawings, and instructions, hereinbefore mentioned and as to the quality of workmanship, or materials used on the work or as to any other questions, claim, right, matter, or thing whatsoever in any way arising out of, or relating to the contract design, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the execution, of failure to execute the same, whether arising, during the progress of the work, or after the completion or abandonment thereof.

**Clause –17: Site Clearance.** On completion of the work, the contractor shall be furnished with a certificate by the Executive Engineer (hereinafter called the Engineer in-charge) of such completion, but neither such certificate shall be given nor shall the work be considered to be complete until the contractor shall have removed all temporary structures and materials brought at site either for use or for operation facilities including cleaning debris and dirt at the site. If the contractor fails to comply with the requirements of this clause then Engineer-in-charge, may at the expense of the contractor remove and dispose of the same as he thinks fit and shall deduct the amount of all expenses so incurred from the contractor's retention money. The contractor shall have no claim in respect of any surplus materials as aforesaid except for any sum actually realized by the sale thereof.

**+Clause –18: Financial Assistance /Advance Payment.**

- (A) **Mobilization advance** is not allowed.
- (B) **Secured Advance against materials brought at site.**
- (i) Secured Advance may be permitted only against imperishable materials/quantities anticipated to be consumed/utilized on the work within a period of three months from the date of issue of secured advance and definitely not for full quantities of materials for the entire work/contract. The sum payable for such materials on site shall not exceed 75% of the market price of materials;
  - (ii) Recovery of Secured Advance paid to the contractor under the above provisions shall be affected from the monthly payments on actual consumption basis, but not later than period more than three months (even if unutilized).

**Clause –19: Recovery as arrears of Land Revenue.** Any sum due to the Government by the contractor shall be liable for recovery as arrears of Land Revenue.

**Clause –20: Refund of Security Deposit/Retention Money.** On completion of the whole of the works (a work should be considered as complete for the purpose of refund of security deposit to a contractor from the last date on which its final measurements are checked by a competent authority, if such check is necessary otherwise from the last date of recording the final measurements), the defects notice period has also passed and the Engineer has certified that all defects notified to the contractor before the end of this period have been corrected, the security deposit lodged by a contractor (in cash or recovered in installments from his bills) shall be refunded to him after the expiry of three months from the date on which the work is completed.

**Divisional Accountant**

**Contractor**

**Executive Engineer/Procuring Agency**

## BILL OF QUANTITIES

### (A) Description and rate of Items based on Composite Schedule of Rates.

Item No	Quantities	Description of item to be executed at site	Rate	Unit	Amount in Rupees
1	2	3	4	5	6

**Amount TOTAL (a)**

----- % above/below on the rates of CSR.

**Amount to be added/deducted on the basis  
Of premium quoted.                      TOTAL (b)**

**Total (A) = a+b in words & figures:**

Contractor

Executive Engineer/Procuring Agency

**(B) Description and rate of Items based on Market (Offered rates)**

<b>Item No</b>	<b>Quantities</b>	<b>Description of item to be executed at site</b>	<b>Rate</b>	<b>Unit</b>	<b>Amount in Rupees</b>

**Total (B) in words & figures:**

Contractor

Executive Engineer/Procuring Agency



Summary of Bill of Quantities.

Cost of Bid

Amount

**1. (A) Cost based on Composite Schedule of Rates.**

**2. (B) Cost based on Non/Offered Schedule of Rates.**

TOTAL COST OF BID (C) = Total (A) + Total (B)

Contractor

Executive Engineer/Procuring Agency

## TENDER FOR O&M / M&R / BID FORM

### (Assessment of Rate Only)

#### (Part-A)

#### NAME OF WORK:- LIST OF MATERIAL FOR O&M / M&R OF TUBEWELLS

Sr. No.	Item / Description	Qty	Rate	Unit
<b>a) O&amp;M / M&amp;R TO TUBEWELLS (SCAVENGER WELLS)</b>				
1	Bolts, studs, nuts & washers for flanged joints for 1.6 c/s	01 Set		P. Set
2	Pump bearing bush - Suction piece for 1.6 C/S, 1.00 C/S & 0.75 C/S.	01 No.		Each
3	Pump bearing bush - discharge piece for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 c/s.	01 No.		Each
4	Pump rubber bearing for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S.	01 No.		Each
5	Pump bowl sleeve for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S	01 No.		Each
6	Casing wear ring for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S	01 No.		Each
7	Impeller locking sleeve for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S	01 No.		Each
8	Gasket pump/suction pipe for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5	01 No.		Each
9	O ring pump discharge/column pipe for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
10	Column Pipe 10 ft long epoxy coated both externally and internally for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
11	Column Pipe top epoxy coated as above for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
12	Line shaft rubber bearing for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
13	Line shaft sleeve for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
14	Mechanical seal for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
15	Head box bearing for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
16	Sand guard & grub screw for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
17	Plug for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
18	Line shaft 10 ft long for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
19	Top shaft for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
20	Line shaft coupling for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
21	Spider bearing carrier for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
22	Pump bowl assembly Lower portion for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each

Sr. No.	Item / Description	Qty	Rate	Unit
23	Pump bowl assembly Middle portion for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
24	Pump bowl assembly Upper portion for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
25	Impeller - complete Type 1/ Type 2 for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
26	Pump/motor drive coupling for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 .	01 No.		Each
27	Head box bearing for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
28	Spider bearing for 1.6 C/S, 1.00 C/S 0.75 C/S, 0.5 C/S .	01 No.		Each
29	Reducer coupling - Type 1& Type 2 for 0.75/ 1.0 C/S & difference sizes (B&C).	01 No.		Each
30	22mm Line shaft 10 ft long for 1.6 C/S, 1.00 C/S & 0.75 C/S	01 No.		Each
31	25mm Top shaft (Head shaft) for 1.6 C/S, 1.00 C/S & 0.75 C/S	01 No.		Each
32	22mm Line shaft coupling for 1.6 C/S, 1.00 C/S & 0.75 C/S	01 No.		Each
33	32 - 22mm coupling (Type 1) for 1.6 C/S, 1.00 C/S & 0.75 C/S	01 No.		Each
34	22 - 25mm coupling (Type 2) for 1.6 C/S, 1.00 C/S & 0.75 C/S	01 No.		Each
35	Bearing bush - pump side for 1.6 C/S, 1.00 C/S & 0.75 C/S.	01 No.		Each
36	Bearing bush - motor side for 1.6 C/S, 1.00 C/S & 0.75 C/S .	01 No.		Each
37	Bearing sleeve pump side for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
38	Bearing sleeve motor side for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
39	Case wear ring for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
40	Impeller for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S	01 No.		Each
41	Retaining ring for 1.50/1.25 c/s .	01 No.		Each
42	Sleeve coupling pump side for 1.50/1.25 c/s .	01 No.		Each
43	Pump shaft for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/s	01 No.		Each
44	Thurst bearing ball for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S.	01 No.		Each
45	Mechanical Seal for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/s	01 No.		Each
46	Bottom cover for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S	01 No.		Each
47	Cover Diaphram for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S.	01 No.		Each
48	Compression plate for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/s	01 No.		Each
49	Bottom Diaphragm casing for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S.	01 No.		Each
50	Upper case weld ring motor for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S.	01 No.		Each

Sr. No.	Item / Description	Qty	Rate	Unit
51	suction strainer for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S	01 No.		Each
52	Pump sand guard for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/s.	01 No.		Each
53	Adopter screwed plug for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
54	Connection nozzle for 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
55	Stage casing for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
56	Suction casing for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
57	Lower bearing housing for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
58	Upper bearing housing for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
59	Axial thrust plate for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
60	Thrust bearing segment carrier for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 Set		P. Set
61	Spacer sleeve for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
62	Case wear ring for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
63	Impeller wear ring for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
64	Thrust bearing ball for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
65	Suction strainer for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
66	Adapter screwed plug for 1.6 C/S, 1.00 C/S, 0.75 C/S & 0.5 C/S .	01 No.		Each
67	Heavy duty bearing drive end for 5.5 kw Brook Crompton Motor.	01 No.		Each
68	Coupling dowel pin for 5.5 kw Motor.	01 No.		Each
69	Shaft Key for 9.00 K.W & 5.5 kw Motor.	01 No.		Each
70	Shaft Key for 7.5 HP, 10/ 15 HP & 20 HP Motor.	01 No.		Each
71	Cage motor for 5.5 kw Motor.	01 No.		Each
72	Motor top cover - roof for 5.5 kw Motor.	01 No.		Each
73	Fan locating pin for 5.5 kw Motor.	01 No.		Each
74	Internal fan for 5.5 kw Motor.	01 No.		Each
75	Fan cowl for 5.5 kw Motor.	01 No.		Each
76	Fan cowl for 9.00 kw Motor.	01 No.		Each
77	Terminal block complete for 9.00 KW & 5.5 kw Motor.	01 No.		Each
78	Terminal block complete for 10/ 15 / 20 HP Motor.	01 No.		Each

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
79	Thermostat sensors set for 9.00 KW & 5.5 kw Motor.	01 No.		Each
80	Thermostat sensors set for 10/ 15 /20 HP Motor.	01 No.		Each
81	Thrust bearing segment for 8.2 kw Motor.	01 No.		Each
82	Mechanical seal locating pin for 8.2 kw & 3.6 KW Motor	01 No.		Each
83	Thrust bearing ring for 8.2 kw Motor	01 No.		Each
84	Thermostat for 3.6 KW & 8.2 kw Motor	01 No.		Each
85	Stator with windings for 8.2 kw Motor.	01 No.		Each
86	Ball retainer for 8.2 kw Motor	01 No.		Each
87	Protection plug for 8.2 kw Motor	01 No.		Each
88	Motor sand guard for 8.2 kw Motor	01 No.		Each
89	Connection sleeves for 3.6 kw Motor	01 No.		Each
90	External fan for 10/ 15 / 20 HP Motor.	01 No.		Each
91	MCCB for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
92	MCB 1P 2A for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
93	MCB 1P 4A for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
94	MCB 1P 16A for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
95	MCB 3P 2A for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
96	MCB 3P 20A for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
97	MCB 3P 32A for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
98	MCB 3P 40A for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
99	Main contactor for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
100	Over load relay for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
101	Current transformer (60:5A) for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
102	Thermistor relay for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
103	Auxiliary relay for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
104	Delay timer for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
105	Voltage protection relay for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
106	Hour counter (99999.99 hrs) for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each

Sr. No.	Item / Description	Qty	Rate	Unit
107	Process timer for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
108	Thermostat (0-50 deg C) for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
109	Anti condensation heater for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
110	Fused switch disconnect for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
111	Ammeter (0-20A) for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
112	Voltmeter (0-500V) for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
113	Indicating lights/red/blue/clear/green for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
114	Push button on/emergency, off/lamp test for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
115	Control mode selector switch for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
116	Capacitor TP for Motor Control Unit Lyle Engineering Type 1, 2, 3, 4, 4a.	01 No.		Each
117	Remove vertical turbine pump, column pipe and line shaft and inspect, and replace in position after inspection.	01 Job		P. Job
118	Remove vertical turbine pump, column pipe and line shaft and inspect, and replace in position after inspection but also remove any fallen pump set or parts	01 Job		P. Job
119	Fit replacement bushes to line shaft assembly.	01 No.		Each
120	Remove submersible pump and motor, and inspect, and replace in position after inspection (note: in scavenger wells only).	01 Job		P. Job
121	Undertake CCTV survey of Tubewell with equipment supplied by the Employer (not including pump removal)	01 Job		P. Job
122	Repair of pump shafts - build up worm areas, machine, re-thread and align (top, line and pump shafts).	01 Job		P. Job
123	Repair of column pipe/suction pipe - cut back to remove corroded flange and weld on new drilled flange.	01 Job		P. Job
124	Repair of pump bowls (top, intermediate and lower) carry out weld repairs and re-machine to standard size.	01 Job		P. Job
125	Strip down pump, inspect to diagnose fault, reassemble after replacing any defective components with new fasteners.	01 Job		P. Job
126	Welding of power transformer of Tube wells with Electric pole for security.	01 Job		P. Job
127	Fit replacement bearings to vertical turbine pump motor.	01 Job		P. Job
128	Investigate, diagnose and repair fault in motor control panel by component replacement.	01 Job		P. Job
129	Replace contacts in MCCB.	01 No.		Each
130	Replace coil and contacts in contactor.	01 No.		Each
131	Replace defective gauge in pump house.	01 No.		Each
132	Repair pump house lighting.	01 No.		Each
133	Replacement of damaged or broken porcelain bushings to Electrical Transformer	01 No.		Each
134	Replacement of transformer HT line fuse.	01 No.		Each

Sr. No.	Item / Description	Qty	Rate	Unit
135	Replacement of LT cable (4 Core) from Transformer to power meter.	01 Meter		P. Meter
136	Install piezo meter	01 No.		Each
137	Replacement of cable for submersible pump, with connectors.	01 No.		Each
138	Carry out operational and functional test.	01 Job		P. Job
139	Measure specific capacity of Tubewell.	01 Job		P. Job
<b>REWINDING OF ELECTRIC MOTOR COMPLETE WITH ALL REWINDING MATERIAL TO GIVE REQUIRED RPM CURRENT (AMPS) AND COMPLETE INSTALION.</b>				
1	Rewinding of 7.5 HP Electric Motor.	01 Job		P. Job
2	Rewinding of 10 HP Electric Motor.	01 Job		P. Job
3	Rewinding of 15 HP Electric Motor.	01 Job		P. Job
4	Rewinding of 20 HP Electric Motor.	01 Job		P. Job
5	Rewinding of pump motor stator 5.5 kw.	01 Job		P. Job
6	Rewinding of pump motor stator 9.0 kw.	01 Job		P. Job
7	Rewinding submersible motor stator 3.6 kw	01 Job		P. Job
8	Rewinding submersible motor stator 8.2 kw	01 Job		P. Job
<b><u>DEDUCTION OF SCRAP COPPER WIRE FROM BURNT MOTORS WHICH HAS TO BE PURCHASED BY THE CONTRACTOR FROM THE DEPARTMENT AND AMOUNT WILL BE DEDUCTED/ RECOVERABLE FROM THE BILL OF CONTRACTOR.</u></b>				
1	7.5 HP = 5.5 kgs	01 K.g		P. Kg
2	10 HP = 6.5 kgs	01 K.g		P. Kg
3	15 HP = 9 kgs	01 K.g		P. Kg
4	20 HP = 10 kgs	01 K.g		P. Kg
5	5.5 K.W = 4.5 kgs	01 K.g		P. Kg
6	9.0 k.w = 8.0 kgs	01 K.g		P. Kg
7	3.6 K.W = 4.0 kgs	01 K.g		P. Kg
8	8.2 K.W = 8.0 kgs	01 K.g		P. Kg
<b><u>b) O&amp;M / M&amp;R TO TUBEWELLS (DRAINAGE WELLS)</u></b>				
1	Bolts, studs & washers for flanged joints for 2.0/ 1.5 C/S pump.	01 Set		P. Set
2	Pump bearing bush - suction piece & discharge piece for 2.0/ 1.5 C/S pump.	01 No.		Each
3	Pump bowl sleeve for 2.0/ 1.5 C/S pump.	01 No.		Each
4	Casing wear ring for 2.0/ 1.5 C/S pump.	01 No.		Each

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
5	Impeller locking sleeve (Taper Lock) for 2.0/ 1.5 C/S pump.	01 No.		Each
6	Gasket pump/suction pipe for 2.0/ 1.5 C/S pump.	01 No.		Each
7	Head box flange gasket for 2.0/ 1.5 C/S pump.	01 No.		Each
8	Head box bearing for 2.0/ 1.5 C/S pump.	01 No.		Each
9	Head box complete for 2.0/ 1.5 C/S pump.	01 No.		Each
10	Column pipe flange gasket for 2.0/ 1.5 C/S pump.	01 No.		Each
11	Joint pump discharge/column pipe for 2.0/ 1.5 C/S pump.	01 No.		Each
12	Column Pipe full length epoxy coated both externally and internally for 2.0/ 1.5 C/S pump.	01 No.		Each
13	Column Pipe top epoxy coated as above for 2.0/ 1.5 C/S pump.	01 No.		Each
14	Column Pipe half length epoxy coated both externally and internally for 2.0/ 1.5 C/S pump.	01 No.		Each
15	Line shaft rubber bearing for 2.0/ 1.5 C/S pump.	01 No.		Each
16	Line shaft sleeve for 2.0/ 1.5 C/S pump.	01 No.		Each
17	Mechanical seal for 2.0/ 1.5 C/S pump.	01 No.		Each
18	Stuffing box housing & gland for 2.0/ 1.5 C/S pump.	01 No.		Each
19	Top nut for for 2.0/ 1.5 C/S pump.	01 No.		Each
20	Sand guard & grub screw for 2.0/ 1.5 C/S pump.	01 No.		Each
21	Plug for 2.0/ 1.5 C/S pump.	01 No.		Each
22	Top shaft (Head shaft) for 2.0/ 1.5 C/S pump.	01 No.		Each
23	Line shaft coupling for 2.0/ 1.5 C/S pump.	01 No.		Each
24	Line shaft full length for 2.0/ 1.5 C/S pump.	01 No.		Each
25	Line shaft half length for 2.0/ 1.5 C/S pump.	01 No.		Each
26	Remove vertical turbine pump, column pipe and line shaft and inspect, and replace in position after inspection.	01 Job		P. Job
27	Fit replacement bushes to line shaft assembly.	01 Job		P. Job
28	Suction pipe for 2.0/ 1.5 C/S pump.	01 No.		Each
29	Repair of column pipe/suction pipe - cut back to remove corroded flange and weld on new drilled flange.	01 Job		P. Job
30	Spider bearing carrier for 2.0/ 1.5 C/S pump.	01 No.		Each
31	Pump shaft for 2.0/ 1.5 C/S pump.	01 No.		Each
32	Repair of pump shafts - build up worn areas, machine, re-thread and align (top, line and pump shafts)	01 Job		P. Job



Sr. No.	Item / Description	Qty	Rate	Unit
33	Pump bowl assembly (Inter mediate) for 2.0/ 1.5 C/S pump.	01 No.		Each
34	Heavy duty top thrust bearing for 10 HP/ 15 HP / 20 HP Motor.	01 No.		Each
35	Heavy duty radial bearing for 10HP / 15 HP / 20 HP motor.	01 No.		Each
36	Coupling dowel pin for 10 HP / 15 HP / 20 HP motor.	01 No.		Each
37	Shaft Key for 10 HP/ 15 HP / 20 HP Motor,	01 No.		Each
38	Ammeter (0-30A) for Motor Control Unit 10 HP /15 HP /20 H/P	01 No.		Each
39	Ammeter (0-50C) for Motor Control Unit 10 HP /15 HP /20 H/P	01 No.		Each
40	Anti condensation heater (60w) for Motor Control Unit 10 HP /15 HP /20 H/P	01 No.		Each
41	Anti condensation heater (6V,60W,220V) for Motor Control Unit 10 HP /15 HP /20 H/P	01 No.		Each
42	Auxiliary relay for Motor Control Unit 10 HP /15 HP /20 H/P	01 No.		Each
43	Auxiliary relay (4NC-4NC) for Motor Control Unit 10 HP /15 HP /20 H/P	01 No.		Each
44	Capacitor TP (4KVAR, 400V) for Motor Control Unit 10 HP /15 HP /20 H/P	01 No.		Each
45	Capacitor TP (5.2KVAR)(400VAC, 50Hz) for Motor Control Unit 10 HP /15 HP /20 H/P	01 No.		Each
46	Carry out operational and functional test.	01 Job		P. Job
47	Carry out specific capacity test.	01 Job		P. Job
48	Control mode selector switch (4 - positions 1, 2, 3 & 4) for Motor Control Unit.	01 No.		Each
49	Current transformer (100/5A) (15/5A) for Motor Control Unit.	01 No.		Each
50	Current transformer (30/5A) for Motor Control Unit .	01 No.		Each
51	Delay timer (0-3 sec 0-3 min) for Motor Control Unit	01 No.		Each
52	Delay timer (10-30 min) for Motor Control Unit	01 No.		Each
53	External fan for 10 HP/ 15HP / 20 HP Motor	01 No.		Each
54	External fan cowl for 10 HP/ 15 HP / 20 HP Motor.	01 No.		Each
55	Felt ring grease seals for 10 HP/ 15 HP / 20 HP Motor,	01 No.		Each
56	Fit replacement bearings to vertical turbine pump motor.	01 No.		Each
57	Fused switch disconnect (63A) for Motor Control Unit	01 No.		Each
58	Fused switch disconnect for Motor Control Unit	01 No.		Each
59	Fuses (3K size) for Power Transformer 25 KVA.	01 No.		Each
60	Fuses (3K size) for Power Transformer 50 KVA.	01 No.		Each

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
61	Fuses (3K size) for Power Transformer 100 KVA.	01 No.		Each
62	Fuses (3K size) for Power Transformer 200 KVA.	01 No.		Each
63	Hour counter (99999.99 hrs) for Motor Control Unit	01 No.		Each
64	Hour counter (MA4R 220V) for Motor Control Unit .	01 No.		Each
65	Indicating lights/red/blue/clear/green for Motor Control Unit	01 No.		Each
66	Install Piezo Meter	01 No.		Each
67	Internal fan for 10 HP/ 15 HP / 20 HP Motor.	01 No.		Each
68	Investigate, diagnose and repair fault in motor control panel by component replacement	01 No.		Each
69	Main contactor for Motor Control Unit 10 HP	01 No.		Each
70	Main contactor for Motor Control Unit 15 HP	01 No.		Each
71	Main contactor for Motor Control Unit 20 HP	01 No.		Each
72	Main contactor (SRC 363 1-5-IN) for Motor Control Unit .	01 No.		Each
73	MCB 10A (2 pole) for Motor Control Unit	01 No.		Each
74	MCB 10A SP for Motor Control Unit .	01 No.		Each
75	MCB 16A (2 pole) for Motor Control Unit 10 HP	01 No.		Each
76	MCB 16A (2 pole) for Motor Control Unit 15 HP	01 No.		Each
77	MCB 16A (2 pole) for Motor Control Unit 20 HP	01 No.		Each
78	MCB 16A SP for Motor Control Unit .	01 No.		Each
79	MCB 6A (2 pole) for Motor Control Unit	01 No.		Each
80	MCB 6A (3 pole) for Motor Control Unit	01 No.		Each
81	MCB 6A SP for Motor Control Unit .	01 No.		Each
82	MCB 6A TP for Motor Control Unit .	01 No.		Each
83	MCCB (30-32A TP) for Motor Control Unit .	01 No.		Each
84	MCCB 16A TP for Motor Control Unit.	01 No.		Each
85	Motor top cover - roof for 10 HP/ 15 HP / 20 HP Motor.	01 No.		Each
86	Over load relay (a=16-25A) (a=12-5-20A) for Motor 10 / 15 / 20 HP.	01 No.		Each
87	Over load relay (a=18-26A TK3N) for Motor 10 / 15 / 20 HP	01 No.		Each
88	Over load relay (120 A to 180 A) for Motor 40 HP	01 No.		Each

Sr. No.	Item / Description	Qty	Rate	Unit
89	Porcelain bushings for Power Transformer 25 KVA.	01 No.		Each
90	Porcelain bushings for Power Transformer 50 KVA.	01 No.		Each
91	Porcelain bushings for Power Transformer 100 KVA.	01 No.		Each
92	Porcelain bushings for Power Transformer 200 KVA.	01 No.		Each
93	Process timer (110-240VAC) for Motor	01 No.		Each
94	Process timer (flush type) for Motor Control Unit .	01 No.		Each
95	Push button on/emergency, off/lamp test for Motor.	01 No.		Each
96	Repair of pump bowls (top, intermediate and lower) carry out weld repairs and re-machine to standard size.	01 Job		P. Job
97	Repair pump house lighting.	01 Job		P. Job
98	Replace coil and contacts in contactor in MCCB.	01 No.		Each
99	Replace contacts in MCCB.	01 No.		Each
100	Replacement of cable for submersible pump with contactors.	01 No.		Each
101	Replacement of damaged or broken porcelain bushings to electrical transformer.	01 No.		Each
102	Replacement of damaged or missing transformer windings.	01 No.		Each
103	Replacement of LT cable from transformer to power meter.	01 No.		Each
104	Replacement of transformer HT line fuse.	01 No.		Each
105	Strip down pump, inspect to diagnose fault, reassemble after replacing any defective components with new fasteners.	01 No.		Each
106	Terminal block complete 10 HP/ 15 HP / 20 HP Motor.	01 No.		Each
107	Thermistor relay (ACTIC-IN) for Motor Control Unit .	01 No.		Each
108	Thermistor sensors set for 10 HP/ 15 HP Motor.	01 No.		Each
109	Thermostat (0-50 C) for Motor	01 No.		Each
110	Thermostat (220VAC) for Motor .	01 No.		Each
111	Undertake CCTV survey of Tubewell with equipment supplied by the Employer (not including pump removal)	01 No.		Each
112	Voltage protection relay (415+ 20%) for Motor Control Unit	01 No.		Each
113	Voltage protection relay (415VAC) for Motor Control Unit	01 No.		Each
114	Voltmeter (0-500V) for Motor Control Unit .	01 No.		Each
115	Voltmeter (0-500VAC, 50Hz) for Motor Control Unit	01 No.		Each
116	Welding of power transformer of t/wells with electric pole for security.	01 Job		P. Job

Sr. No.	Item / Description	Qty	Rate	Unit
<b>REWINDING OF HT/ LT TRANSFORMER COMPLETE WITH ALL REWINDING MATERIAL TO GIVE REQUIRED POWER AND COMPLETE INSTALATION.</b>				
1	Rewinding of LT coil for Power Transformer 25 KVA.	01 Coil		P. Coil
2	Rewinding of LT coil for Power Transformer 50 KVA.	01 Coil		P. Coil
3	Rewinding of LT coil for Power Transformer 100 KVA.	01 Coil		P. Coil
4	Rewinding of LT coil for Power Transformer 200 KVA.	01 Coil		P. Coil
5	Rewinding of HT coil for Power Transformer 25 KVA.	01 Coil		P. Coil
6	Rewinding of HT coil for Power Transformer 50 KVA.	01 Coil		P. Coil
7	Rewinding of HT coil for Power Transformer 100 KVA.	01 Coil		P. Coil
8	Rewinding of HT coil for Power Transformer 200 KVA.	01 Coil		P. Coil
9	Supplying transformer Oil.	01 Litter		P. Litter
10	Supplying & Fixing transformer Core 25 KVA.	01 No.		Each
11	Supplying & Fixing transformer Core 50 KVA.	01 No.		Each
12	Supplying & Fixing transformer Core 100 KVA.	01 No.		Each
13	Supplying & Fixing transformer Core 200 KVA.	01 Job		P. Job
14	Supplying & Fixing transformer Insulator.	01 No.		Each
<b><u>SCRAP COPPER WIRE FROM THE REPLACEMENT OF BURNT HT/ LT TRANSFORMER COIL WHICH HAS TO BE PURCHASED BY THE CONTRACTOR FROM THE DEPARTMENT AND AMOUNT WILL BE DEDUCTED/ RECOVERABLE FROM THE BILL OF CONTRACTOR.</u></b>				
<b>DEDUCTION OF SCRAPE WIRE FOR REWINDING OF TRANSFORMER (L.T) COIL</b>				
1	25 KVA = 03 Kgs	01 K.g		P. Kg
2	50 KVA = 04 Kgs	01 K.g		P. Kg
3	100 KVA = 08 Kgs	01 K.g		P. Kg
4	200 KVA = 11 Kgs	01 K.g		P. Kg
<b>DEDUCTION OF SCRAPE WIRE FOR REWINDING OF TRANSFORMER (H.T) COIL</b>				
1	25 KVA = 07 Kgs	01 K.g		P. Kg
2	50 KVA = 09 Kgs	01 K.g		P. Kg
3	100 KVA = 15 Kgs	01 K.g		P. Kg
4	200 KVA = 25 Kgs	01 K.g		P. Kg

Sr. No.	Item / Description	Qty	Rate	Unit
<b>c) O&amp;M / M&amp;R TO TUBE WELLS (OLD COMPONENT)</b>				
<b>A. PUMP PARTS</b>				
1	Top shaft 25 mm	01 No.		Each
2	Top shaft 30 mm	01 No.		Each
3	Column shaft with protecting sleeve 25 x 3050 mm	01 No.		Each
4	Column shaft with protecting sleeve 30 x 3050 mm	01 No.		Each
5	Top nut 25 mm	01 No.		Each
6	Top nut 30 mm	01 No.		Each
7	Threaded coupling 25 mm	01 No.		Each
8	Threaded coupling 30 mm	01 No.		Each
9	Stuffing box bush 25 mm	01 No.		Each
10	Stuffing box bush 30 mm	01 No.		Each
11	Stuffing box complete 25 mm	01 No.		Each
12	Stuffing box complete 30 mm	01 No.		Each
13	Rubber bearing bush 25 mm	01 No.		Each
14	Rubber bearing bush 30 mm	01 No.		Each
15	Shaft protecting sleeve 25 mm	01 No.		Each
16	Shaft protecting sleeve 30 mm	01 No.		Each
17	Column pipe socket with rubber bearing bush 7" dia	01 No.		Each
18	Column pipe socket with rubber bearing bush 8" dia	01 No.		Each
19	Column pipe socket with rubber bearing bush 10" dia	01 No.		Each
20	Column pipe 7" dia 10' long	01 No.		Each
21	Column pipe 8" dia 10' long	01 No.		Each
22	Column pipe 10" dia 10' long	01 No.		Each
23	Gland packing 25 mm with lead wire	01 No.		P. Kg
24	Stud nut for stuffing box 25 mm	01 No.		Each
25	Stud nut for stuffing box 30 mm	01 No.		Each
26	Pump shaft 45 mm for pump type B-10/B-2 for 1.5 c/s	01 No.		Each

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
27	Pump shaft 45 mm for pump type B-12/D-2 for 2.0 c/s	01 No.		Each
28	Pump shaft 45 mm for pump type B-12/B-2 for 3.0 c/s	01 No.		Each
29	Stud nut for pump type B-10, 12/B2	01 No.		Each
30	Upper piece of bowl assembly pump type B10 / B2	01 No.		Each
31	Upper piece of bowl assembly pump type B12 / B2 2.0 c/s	01 No.		Each
32	Upper piece of bowl assembly pump type B12 / B2 3.0 c/s	01 No.		Each
33	Intermediate piece of bowl assembly pump type B10 /D2 1.5 c/s	01 No.		Each
34	Intermediate piece of bowl assembly pump type B12 /B2 2.0 c/s	01 No.		Each
35	Intermediate piece of bowl assembly pump type B12 /B2 3.0 c/s	01 No.		Each
36	Lower piece of bowl assembly for pump type B10 / D2 1.5 c/s	01 No.		Each
37	Lower piece of bowl assembly for pump type B12 / B2 2.0 c/s	01 No.		Each
38	Lower piece of bowl assembly for pump type B10 / D2 3.0 c/s	01 No.		Each
39	Impeller for pump type B10 / D2	01 No.		Each
40	Impeller for pump type B12 / B2	01 No.		Each
41	Impeller for pump type B10 / D2	01 No.		Each
42	Impeller sleeve 45 mm pump type B10/D2	01 No.		Each
43	Impeller sleeve 45 mm pump type B12/D2	01 No.		Each
44	Impeller sleeve 45 mm pump type B12/B2	01 No.		Each
45	Bearing sleeve for pump type B10 / D2	01 No.		Each
46	Bearing sleeve for pump type B12 / D2 & B12 /B2	01 No.		Each
47	Clamping sleeve 45 mm for pump type B10 / D2, B12 / B2 & B12/ D2	01 No.		Each
48	Rubber bearing bush for pump type B10 / D2 , B12/B2, B12/D2	01 No.		Each
49	Sand guard 45 mm for pump type B10 /D2, B12/B2, B12/ D2	01 No.		Each
50	Suction pipe 7" dia 10' long for pump type	01 No.		Each
51	Suction pipe 8" dia 10' long for pump type	01 No.		Each
52	Gravel of Cambel Pur quarry	01 Cft		P. Cft
53	Supplying & Painting Rabialac oil paint (black, red and gray)	01 Gallon		P. Gallon
54	Repair of column pipe 10" dia 10' long cutting, welding, threading & refacing.	01 Job		P. Job

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
55	Repair of column pipe 8" dia 10' long cutting, welding, threading & re-facing.	01 Job		P. Job
56	Repair of column pipe 7" dia 10' long cutting, welding, threading & re-facing.	01 Job		P. Job
57	Repair of Top shaft 30X1400mm including cutting, welding, threading & refacing.	01 Job		P. Job
58	Repair of Top shaft 25X1400mm including cutting, welding, threading & refacing.	01 Job		P. Job
59	Repair of column shaft 30X3050mm including cutting, welding, threading & refacing.	01 Job		P. Job
60	Repair of column shaft 25X3050mm including cutting, welding, threading & refacing.	01 Job		P. Job
61	Repair of Bowl Assembly 1 to 2 cusecs.	01 Job		P. Job
62	Repair of Bowl Assembly 3 to 5 cusecs.	01 Job		P. Job
63	Repair of M.S Pipe 10" dia including replacement of Nuts, bolts & Rubber packing etc.	01 Job		P. Job
64	Repair of Stuffing Box including replacement of bush gland Dori & studs etc.	01 Job		P. Job
<b>B. PANEL PARTS</b>				
1	Circuit Breaker 40-60	01 No.		Each
2	Circuit Breaker 16-25	01 No.		Each
3	Circuit Breaker 28-40	01 No.		Each
4	Circuit Breaker 22-32	01 No.		Each
5	Air Breaker Contactor 4417	01 No.		Each
6	Air Breaker Contactor 4617	01 No.		Each
7	Air Breaker Contactor 4817	01 No.		Each
8	Air Breaker Contactor 80 Ampere to 120 Ampere Motor Control Unit 40 HP	01 No.		Each
9	Bio metal relay 16-25	01 No.		Each
10	Bimetal relay 22-32	01 No.		Each
11	Bimetal relay 28-40	01 No.		Each
12	Magnetic coil for 46-17 AB	01 No.		Each
13	Magnetic coil for 48-17 AB	01 No.		Each
14	Main Contact set 1230	01 No.		Each
15	Main Contact set 1240	01 No.		Each
16	MCB single pole 4 Amps	01 No.		Each
17	MCB double pole 6 Amps	01 No.		Each
18	On Off switch / push button (twin set)	01 Set		P. Set
19	On Off switch / push button pair	01 Pair		P. Pair

Sr. No.	Item / Description	Qty	Rate	Unit
20	Trip relay 3-UN 8004	01 No.		Each
21	Repair of control panel including welding, wiring & painting etc, complete.	01 No.		Each
<b>C. MOTOR PARTS</b>				
1	Motor ball bearing 6310 - 6317	01 Set		P. Set
2	Motor ball bearing 6309 - 6313	01 Set		P. Set
3	Motor ball bearing 6312 - 6319	01 Set		P. Set
4	Motor fan 10 HP	01 No.		Each
5	Motor fan 15 HP	01 No.		Each
6	Motor fan 20 HP	01 No.		Each
7	Motor fan 25 HP	01 No.		Each
8	Motor fan 30 HP	01 No.		Each
9	Motor fan 40 HP	01 No.		Each
10	PVC wire 7/052 (Copper)	01 Coil		P. Coil
11	PVC wire 7/064 (Copper)	01 Coil		P. Coil
12	PVC wire 7/044 (Copper)	01 Coil		P. Coil
13	PVC wire 7/036 (Copper)	01 Coil		P. Coil
14	PVC wire 7/029 (Copper)	01 Coil		P. Coil
14	PVC wire 7/029 (Copper 4-core)	01 Coil		P. Coil
15	PVC wire 7/064 (Copper 4-core)	P. Meter		Meter
16	Auxiliary wire 1/029	01 Coil		P. Coil
17	Auxiliary wire 1/036	01 Coil		P. Coil
18	Richet pins / Goli	01 No.		Each
19	Motor coupling with key 15/20 HP	01 No.		Each
20	Motor coupling with key 30/25 HP	01 No.		Each
21	Motor coupling with key 40 HP	01 No.		Each
22	Funnel set	01 Set		P. Set
23	Terminal box cover for motor	01 No.		Each
24	Richet pin plate for 15 - 40 HP	01 No.		Each
25	Motor cowl for 15 & 20 HP	01 No.		Each
26	Motor cowl for 25 - 40 HP	01 No.		Each
27	Grease Shell Avania - III	01 K.g		P. Kgm
28	Repair of Housing of Electric Motor 10 H.P to 20 H.P	01 Job		P. Job
29	Repair of Housing of Electric Motor 25 H.P to 40 H.P	01 Job		P. Job



Sr. No.	Item / Description	Qty	Rate	Unit
<b>D. <u>REWINDING OF ELECTRIC MOTORS VARIOUS HP</u></b>				
<b><u>REWINDING OF ELECTRIC MOTOR COMPLETE WITH ALL REWINDING MATERIAL TO GIVE REQUIRED RPM CURRENT (AMPS) AND COMPLETE INSTALION.</u></b>				
1	15 HP 1450 RPM, 22.5 Amps	01 Job		P. Job
2	20 HP 1450 RPM, 30.5 Amps	01 Job		P. Job
3	25 HP 1450 RPM, 36 Amps	01 Job		P. Job
4	30 HP 1450 RPM, 43 Amps	01 Job		P. Job
5	40 HP 1450 RPM, 50 Amps	01 Job		P. Job
<b><u>DEDUCTION OF SCRAPE COPPER WIRE FROM BURNT MOTORS WHICH HAS TO BE PURCHASED BY THE CONTRACTOR FROM THE DEPARTMENT AND AMOUNT WILL BE DEDUCTED/ RECOVERABLE FROM THE BILL OF CONTRACTOR.</u></b>				
1	15 HP = 9 kgs	01 K.g		P. Kg
2	20 HP = 10 kgs	01 K.g		P. Kg
3	25 HP = 14 kgs	01 K.g		P. Kg
4	30 HP = 16 kgs	01 K.g		P. Kg
5	40 HP = 20 kgs	01 K.g		P. Kg

**(Part-B)**

**NAME OF WORK:- LIST OF MATERIAL FOR O&M / M&R OF OTHER BUILDINGS**

Sr. No.	Item / Description	Qty	Rate	Unit
<b><u>a) O&amp;M / M&amp;R of Water Supply and Sewerage Line</u></b>				
1	Cleaning of Sewerage lines/holes removing obstruction for smooth flow including repair of damaged portion.	01 Job		P. Job
2	Cleaning and fumigation of underground and overhead water supply tanks including disposed off deposited mud.	01 Job		P. Job
3	Supplying & fixing PVC Pipe 4" dia (Superior quality) for Water Supply pipe line.	01 Rft		P. Rft
4	Supplying & fixing PVC Socket 4" dia (Superior quality) for Water Supply pipe line.	01 No.		Each
5	Supplying & fixing PVC Elbow 4" dia (Superior quality) for Water Supply pipe line.	01 No.		Each
6	Supplying & fixing PVC Tee 4" dia (Superior quality) for Water Supply pipe line.	01 No.		Each
7	Supplying PVC Solution (Superior quality) for jointing of Water Supply pipe line.	01 Bottle		P. Bottle

Sr. No.	Item / Description	Qty	Rate	Unit
<b>b) O&amp;M / M&amp;R of Sanitary Items (Supplying &amp; Fixing)</b>				
1	Supplying & Fixing Flush Tank i/c all accesories etc complete	01 Job		P. Job
2	Supplying & Fixing Wash Basin (Medium Size) i/c all accessories etc complete	01 Job		P. Job
3	Supplying & Fixing Mirror 18" x 24".	01 Job		P. Job
4	Supplying & Fixing Gate Valve 1/2" dia.	01 Job		P. Job
5	Supplying & Fixing Gate Valve 1" dia.	01 Job		P. Job
6	Supplying & Fixing Gate Valve 3" dia.	01 Job		P. Job
7	Supplying & Fixing G.I Pipe 2" dia.	01 Job		P. Job
8	Supplying & Fixing G.I Pipe 1.5" dia.	01 Job		P. Job
9	Supplying & Fixing G.I Pipe 1" dia.	01 Job		P. Job
10	Supplying & Fixing G.I Pipe 3/4" dia.	01 Job		P. Job
11	Supplying & Fixing G.I Pipe 1/2" dia.	01 Job		P. Job
12	Supplying & Fixing Bib Cock 1/2" dia.	01 Job		P. Job
13	Supplying & Fixing Bib Cock 3/4" dia.	01 Job		P. Job
14	Supplying & Fixing Nylon Connection 1/2" dia.	01 Job		P. Job
15	Supplying & Fixing Pillar Cock 1/2" dia.	01 Job		P. Job
16	Supplying & Fixing W.C (Indian Type) ic/ all accessories etc.	01 Job		P. Job
17	Supplying & Fixing Commode (English Type).	01 Job		P. Job
18	Supplying & Fixing G.I Socket 3" dia.	01 Job		P. Job
19	Supplying & Fixing G.I Socket 2" dia.	01 Job		P. Job
20	Supplying & Fixing G.I Socket 1.5" dia.	01 Job		P. Job
21	Supplying & Fixing G.I Socket 1" dia.	01 Job		P. Job
22	Supplying & Fixing G.I Socket 3/4" dia.	01 Job		P. Job
23	Supplying & Fixing G.I Socket 1/2" dia.	01 Job		P. Job
24	Supplying & Fixing G.I Elbow 1/2" dia.	01 Job		P. Job
25	Supplying & Fixing G.I Tee 1/2" dia.	01 Job		P. Job
26	Supplying & Fixing G.I Tee 3/4" dia.	01 Job		P. Job
27	Supplying & Fixing Door Handle i/c screws etc.	01 Job		P. Job

Sr. No.	Item / Description	Qty	Rate	Unit
28	Supplying & Fixing Double action hinges (Local).	01 Job		P. Job
30	Supplying & Fixing Mirror 22" x 16"	01 Job		P. Job
31	Supplying & Fixing Clamp 4" for rain water pipe.	01 Job		P. Job
34	Supplying & Fixing Glass pan.	01 Job		P. Job
35	Supplying & Fixing Wire gauze.	01 Job		P. Job
36	Supplying & Fixing Foot Valve 3".	01 Job		P. Job
37	Supplying & Fixing Gate Valve 1/2".	01 Job		P. Job
38	Supplying & Fixing G.I Union 3" dia.	01 Job		P. Job
39	Supplying & Fixing G.I Union 2" dia.	01 Job		P. Job
40	Supplying & Fixing G.I Union 1.5" dia.	01 Job		P. Job
41	Supplying & Fixing G.I Union 1" dia.	01 Job		P. Job
42	Supplying & Fixing G.I Union 3/4" dia.	01 Job		P. Job
43	Supplying & Fixing G.I Union 1/2" dia.	01 Job		P. Job
44	Supplying & Fixing Hack Saw blade 12" Size.	01 Job		P. Job
45	Supplying & Painting Zinc oxide.	01 Job		P. Job
46	Supplying & Fixing Fiber glass over head tank 500 gal: capacity.	01 Job		P. Job

**c) O&M / M&R of Electric Items (Supplying & Fixing)**

1	Tube-light 4' long Phillips complete.	01 No.		Each
2	Bulb 100 W Phillips.	01 No.		Each
3	Tube rod 4' long.	01 No.		Each
4	PVC wire 3/036 (Pak Cable).	01 Coil		P. Coil
5	PVC wire 3/029 (Pak Cable).	01 Coil		P. Coil
6	Button On-Off switch 5 Amps.	01 No.		Each
7	Bulb holder brass 2 Pin.	01 No.		Each
8	Bulb holder brass 3 Pin.	01 No.		Each
9	Mercury bulb 125w.	01 No.		Each
10	Mercury bulb HP 160w.	01 No.		Each
11	Push button.	01 No.		Each

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
12	Plug socket 15 Amps ( sup: quality).	01 No.		Each
13	Power plug 15 Amps ( sup: quality).	01 No.		Each
14	Ceiling fan 56" size.	01 No.		Each
15	Fan Regulator.	01 No.		Each
16	Tube Rod Chock 40w.	01 No.		Each
17	Mercury bulb chock 125w.	01 No.		Each
18	Starter for Tube light.	01 No.		Each
19	Capacitor for fan.	01 No.		Each
20	Main Switch Single Phase 30 Amps.	01 No.		Each
21	Main Switch Single Phase 5 Amps.	01 No.		Each
22	PVC wire 7/064 (Pak cables).	01 Coil		P. Coil
23	PVC wire 7/036 (Pak cables).	01 Coil		P. Coil
24	Tube Light twin complete.	01 No.		Each
25	Electric Board Sheet 10" x 12".	01 No.		Each
26	Electric Board Sheet 8" x 10".	01 No.		Each
27	Electric Board Sheet 6" x 7".	01 No.		Each
28	Electric Board Sheet 4" x 7".	01 No.		Each
29	Electric Board Sheet 3" x 4".	01 No.		Each
30	Bearing for Ceiling fan.	01 No.		Each
31	Rod for electric heater 1000w.	01 No.		Each
32	Electric room heater.	01 No.		Each
33	Tape solution 3/4" width.	01 No.		Each
34	Electric Bell.	01 No.		Each
35	PVC pipe 1" dia.	01 Rft		P.Rft
36	PVC Socket 1" dia.	01 No.		Each
37	PVC nipple socket 1" dia.	01 No.		Each
38	PVC Elbow 1" dia.	01 No.		Each
39	PVC Pipe 1/2" dia.	01 Rft		P.Rft

Sr. No.	Item / Description	Qty	Rate	Unit
40	PVC Socket 1/2" dia.	01 No.		Each
41	PVC nipple socket 1/2" dia.	01 Rft		Each
42	PVC Elbow 1/2" dia.	01 No.		Each
43	PVC Plastic pipe 1" dia.	01 Rft		P.Rft
44	PVC Plastic pipe 3/4" dia.	01 Rft		P.Rft
45	Rewinding of electric Ceiling fan and replacement of bearing, capacitor etc. complete.	01 Job		P. Job
<b>d) O&amp;M / M&amp;R of Petty Articles / General Items (Supplying &amp; Fixing)</b>				
1	Supplying Bamboo Large Size.	01 No.		Each
2	Supplying Bamboo Small Size.	01 No.		Each
3	Vim Large Size.	01 Tin		Per Tin
4	Phenyl.	01 Tin		Per Tin
5	Rubber Pipe 3/4" dia.	01 Rft		P.Rft
6	Water Cooler plastic 10 Litres.	01 No.		Each
7	Bed Sheet Single (Cotton).	01 No.		Each
8	Bed Sheet Double (Cotton).	01 No.		Each
9	Bed Sheet Single (Silk).	01 No.		Each
10	Bed Sheet Double (Silk).	01 No.		Each
11	Blanket single (Plush Mink).	01 No.		Each
12	Blanket Double (Plush Mink).	01 No.		Each
13	Lux Soap (Medium Size).	01 No.		Each
14	Air Freshner.	01 No.		Each
15	Towel Bath Size.	01 No.		Each
16	Towel Medium Size.	01 No.		Each
17	Ash Tray (Glass).	01 No.		Each
18	Water Set (Glass).	01 Set		P.Set
19	Tea Set (China clay).	01 Set		P.Set
20	Tea Cup with saucers (China clay).	01 Set		P.Set
21	Dinner Set (52 Pcs).	01 Set		P.Set

Sr. No.	Item / Description	Qty	Rate	Unit
22	Cutlery Set.	01 Set		P.Set
23	Tray Set (plastic).	01 Set		P.Set
24	Jai Namaz (Dari)	01 No.		Each
25	Jai Namaz (Mat).	01 No.		Each
26	Supplying & Painting Distemper	01 No.		Each
28	Cement 50cwt: including cartage.	01 No.		Each
29	Repair of Wooden door including replacement of Chowkats, Town Bolts & loding arrangement etc.	01 Job		P. Job
30	Repair of Iron widows including replacement of glasses, welding etc.	01 Job		P. Job
31	Oil Paint (all Colours).	01 Tin		P.Tin
32	Hill sand including cartage.	01 Cft		P.Cft
33	Repair of water supply pump including dismenting, replacement of gland bushes, gland Doriiculding & refitting.	01 Job		P. Job
34	Bajri	01 Cft		P. Cft
35	Lime.	01 K.g		P. Kg
36	Rubber Pipe 1" dia.	01 Rft		P. Rft
37	Hand glass (Power Proof).	01 No.		Each
38	Window glasses.	01 Cft		P.Cft
39	Shirt & Shalwar Suit for Naib Qasid, Driver, Chowkidar etc, including sewing charges.	01 No.		Each
40	Kerosene oil.	01 Litter		P. Litter

**(Part-C)**

**NAME OF WORK:- LIST OF MATERIAL FOR O&M / M&R OF GOVERNMENT VEHICLES**

Sr. No.	Item / Description	Qty	Rate	Unit
<b>a) SUZUKI JEEP (POTOHAR / JIMNY)</b>				
1	Black Polish	01 Job		P. Job
2	Head facing master grinding	01 Job		P. Job
3	Main Begin set	P. Set		P.Set

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
4	Supply Ring helper	01 No.		Each
5	Supplying Chamber Tube	01 No.		Each
6	Supplying & fixing Point	01 No.		Each
7	Supplying & fixing Timing Bearing.	01 No.		Each
8	Supplying & fixing Timing Belt	01 No.		Each
9	Supplying & fixing Fan Belt	01 No.		Each
10	Supplying & fixing Engine Foundation	01 No.		Each
11	Supplying & fixing Oil Seal	01 No.		Each
12	Supplying & fixing Plug	01 No.		Each
13	Supplying & fixing Plug Wire (distribution wire)	01 No.		Each
14	Supplying & fixing Valve Guide	01 No.		Each
15	Supplying & fixing Gas kit	01 No.		Each
16	Supplying & fixing condenser	01 No.		Each
17	Supplying & fixing Clutch bearing	01 No.		Each
18	Supplying & fixing Tappet rooker	01 No.		Each
19	Supplying & fixing Tappet Valve Spring	01 No.		Each
20	Supplying & fixing Catcher	01 No.		Each
21	Supplying & fixing Clutch wire	01 No.		Each
22	Supplying & fixing Tappet Bensery	01 No.		Each
23	Supplying & fixing Air Filter	01 No.		Each
24	Supplying & fixing Fuel Filter	01 No.		Each
25	Supplying & fixing Steering Cross	01 No.		Each
26	Supplying & fixing Kamani Bush	01 No.		Each
27	Supplying & fixing Kamani Plate	01 No.		Each
28	Supplying & fixing Paidan Rubber	01 No.		Each
29	Supplying & fixing Master Cylinder kit	01 No.		Each
30	Supplying & fixing Break Washer	01 No.		Each
31	Supplying & fixing Gouda Oil Seal	01 No.		Each

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
32	Supplying & fixing Wheel bearing front	01 No.		Each
33	Supplying & fixing Gouda Bearing	01 No.		Each
34	Supplying & fixing Back Axle	01 No.		Each
35	Supplying & fixing Back Axle Bearing	01 No.		Each
36	Supplying & fixing Lock Back Door	01 No.		Each
37	Supplying & fixing Channel of front door	01 No.		Each
38	Supplying & fixing Door Glass	01 No.		Each
39	Supplying & fixing Side glass (Back)	01 No.		Each
40	Supplying & fixing Rim (6 X 16)	01 No.		Each
41	Repairs to seal ( Foam & Cushion etc) Complete.	01 Job		P. Job
42	Wire repairing Complete	01 Job		P. Job
43	Supplying & fixing Horn	01 No.		Each
44	Supplying & fixing Back light	01 No.		Each
45	Supplying & fixing Main Light	01 No.		Each
46	Supplying & fixing Side Glass (Mirror)	01 No.		Each
47	Replacing Worn out place of Bottom of front seat	01 Job		P. Job
48	Painting of Replaced bottom of front seat	01 Job		P. Job
49	Painting of replaced Back seat floor	01 Job		P. Job
50	Denting back door and replacing worn out piece.	01 Job		P. Job
51	Painting of replaced back door	01 Job		P. Job
52	Denting bonnet	01 Job		P. Job
53	Painting Bonnet	01 Job		P. Job
54	Denting side door	01 Job		P. Job
55	Painting side door	01 Job		P. Job
56	Supplying seat cover complete.	01 Set		P. Set
57	Rubber of head/ crank.	01 Job		P. Job
58	Supplying & Fixing Pump complete	01 No.		Each
59	Supplying & Fixing Fuel Pump	01 No.		Each



<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
60	Supplying & Fixing Ring Set	01 Set		P. Set
61	Supplying & Fixing water body	01 No.		Each
62	Supplying & Fixing Radiator	01 No.		Each
63	Supplying & Fixing Piston Set	01 Set		P. Set
64	Supplying & Fixing Pressure Plate.	01 No.		Each
65	Supplying & Fixing Clutch Plate.	01 No.		Each
66	Supplying & Fixing Generator.	01 No.		Each
67	Supplying & Fixing Self.	01 No.		Each
68	Supplying & Fixing Tyre rod.	01 Set		P. Set
69	Supplying & Fixing Steering Jumper.	01 No.		Each
70	Supplying & Fixing Steering Box complete.	01 No.		Each
71	Supplying & Fixing Break Leather	01 Set		P. Set
72	Supplying & Fixing Shock Leather	01 Set		P. Set
73	Supplying & Fixing Silencer.	01 No.		Each
74	Supplying & Fixing Shaft Cross.	01 No.		Each
75	Supplying Tyre with Tube (New)	01 No.		Each
76	Supplying tyre with Tubes (Recondition).	01 No.		Each
77	Supplying Battery 12 Volts (9Plate).	01 No.		Each
78	Replacing worn out piece of Back seat floor	01 Job		P. Job
79	Grinding Crank shaft	01 Job		P. Job
80	Ring Piston	01 No.		Each
81	Packing Kit	01 Set		P. Set
82	Timing Roller.	01 No.		Each
83	Engine Over haling	01 Job		P. Job
84	Carburetor	01 Set		P. Set
85	Auto Wiring	01 Job		P. Job
86	Bonnet lock with wire	01 Set		P. Set
87	Steering main Switch	01 No.		Each

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
88	Repair of Roof.	01 Job		P. Job
89	Repair of Door.	01 No.		Each
90	Door lock Kit	01 No.		Each
91	Door handle	01 No.		Each
92	Vapor	01 No.		Each
93	Supplying and Fixing Gear Box complete.	01 No.		Each
94	Parking light	01 No.		Each
95	Wheal Alignment	01 No.		Each
96	Complete denting	01 Job		P. Job
97	Complete painting.	01 Job		P. Job
<b>b) TOYOTA HILUX DOUBLE CABIN (VIGO)</b>				
1	Supplying and Fixing Diesel Filter	01 No.		Each
2	Handle Wall	01 No.		Each
3	Supplying and Fixing Flash Tank	01 No.		Each
4	Supplying and Fixing Huck	01 No.		Each
5	Foot Mate	01 No.		Each
6	Supplying and Fixing Fan i/c Magnate complete	01 No.		Each
7	Horn Double	01 No.		Each
8	Repair to lock	01 Job		P. Job
9	Mad grad welding	01 Job		P. Job
10	Supplying and Fixing Engine foundation	01 No.		Each
11	Silencer welding	01 Job		P. Job
12	Repair to pipe	01 Job		P. Job
13	Supplying and Fixing silencer Dholki	01 No.		Each
14	Supplying and Fixing Expandal wall	01 No.		Each
15	Supplying and Fixing Viper set	01 Set		P. Set
16	Front repair complete	01 Job		P. Job
17	Door Repair	01 Job		P. Job

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
18	Seated Wash	01 Job		P. Job
19	Front Set Welding	01 Job		P. Job
20	Bal gent Boat (4 Nos. Set)	01 Set		P. Set
21	supplying and Fixing Front Wheel Alignment	01 No.		Each
22	Self Repair	01 Job		P. Job
23	Oil Filter	01 No.		Each
24	Labour Charges for General overhauling of Vehicle	01 Job		P. Job
25	Electric Lamp	01 No.		Each
26	Supplying and Fixing Foundation	01 No.		Each
27	Gauge	01 No.		Each
28	Supplying and Fixing Staring cross	01 No.		Each
29	Supplying and Fixing Staring Box	01 No.		Each
30	Supplying and Fixing Self Body	01 No.		Each
31	Diesel Pipe	01 No.		Each
32	Crank Tuning	01 Job		P. Job
33	Supplying and Fixing Tuning belt set	01 Set		P. Set
34	Ball Joint repair	01 Job		P. Job
35	Break Oil	01 Tin		P. Tin
36	Supplying and Fixing Sheerer front	01 Set		P. Set
37	Supplying and Fixing Tie Rod	01 Set		P. Set
38	Seat Cushion	01 Job		P. Job
39	Supplying and Fixing Connection Rod Bush	01 Set		P. Set
40	Supplying and Fixing Silencer Bush	01 Set		P. Set
41	Main Selt (Generator)	01 No.		Each
42	Supplying and Fixing Carbon Bush (Genuine)	01 Set		P. Set
43	Generator Service	01 No.		Each
44	Supplying and Fixing Timing Bush	01 No.		Each
45	Battery Exide 12 Volt 24 Plate	01 No.		Each

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
46	Supplying and Fixing Piston with pin set	01 Set		P. Set
47	Supplying and Fixing Ring set	01 Set		P. Set
48	Supplying and Fixing Main Begin set	01 Set		P. Set
49	Supplying and Fixing Valve set	01 Set		P. Set
50	Supplying and Fixing Guide Set	01 Set		P. Set
51	Tyre with tube (New)	01 No.		Each
52	Tyre with tube (Recondition)	01 No.		Each
53	Supplying and Fixing Crank shaft	01 No.		Each
54	Plate for Crank Oil Toy	01 Set		P. Set
55	Supplying and Fixing Auto Miser Nozzle	01 No.		Each
56	Parking Light	01 No.		Each
57	Side Glass	01 No.		Each
58	Break Leaver	01 Set		P. Set
59	Break Paddle	01 No.		Each
60	Supplying and Fixing Gas Kit (Complete	01 No.		Each
61	Supplying and Fixing Generator	01 No.		Each
62	Supplying and Fixing Iron Water Pipe	01 No.		Each
63	Supplying and Fixing Bensery	01 No.		Each
64	Kenchi Bush Fitting	01 Job		P. Job
65	Supplying and Fixing Cutout	01 No.		Each
66	Supplying and Fixing Chamber Pipe	01 No.		Each
67	Supplying and Fixing Clutch Plate	01 No.		Each
68	Supplying and Fixing Kamani Patta.	01 No.		Each

Sr. No.	Item / Description	Qty	Rate	Unit
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**(Part-D)**

**NAME OF WORK:- PRINTING & BINDING OF OFFICE DOCUMENTS**

Sr. No.	Item / Description	Qty	Rate	Unit
1	Printing documents on Laser printer paper size A4, photo copies on powder machine and spiral binding complete.			
	(a) 0 - 50 pages	01 Job		P. Job
	(b) 51 - 100 pages	01 Job		P. Job
	(c) 101 - 200 pages	01 Job		P. Job
2	Printing color Brochure 3 fold on paper size A4 complete etc.	01 Job		P. Job
3	Hand Book for D.Dos-A Hand Book for Drawing & Disbursing officers.	01 No.		01 No.
4	C.S.R Civil Service Regulations with Appendixes	01 No.		01 No.
5	Treasury Rule Vol-I (with Model O &A).	01 No.		01 No.
6	Combined set of account Code - Vol-I (with chart of Classification), II, III, IV (with Model O & A).	01 No.		01 No.
7	Combined set C.P.W.	01 No.		01 No.
8	Guide for Sindh Drawing & Disbursing officer (Sindh D.D.Os).	01 No.		01 No.
9	Combined Set of Sindh F.R Vol-I & II.	01 No.		01 No.
10	Bombay Public Works Department Manual.	01 No.		01 No.
11	Bombay P.W.D Manual Vol-II (Appendices).	01 No.		01 No.
12	Sindh Civil Servants (E & D) Rules 1973.	01 No.		01 No.
13	Sindh G.P. Fund Rules, 1938 & Uniform Rates towards G.P.Fund Bond system (1986, 1992, 1995 & 2002).	01 No.		01 No.
14	Sindh Revised N.S.P & Allowance 1977.	01 No.		01 No.
15	Sindh BPS 1983, 1987, 1991, 1994, 2001 & 2005.	01 No.		01 No.
16	Supply Tubewell Log Book as sample.	Each		Each

Sr. No.	Item / Description	Qty	Rate	Unit
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**(Part-E)**

**NAME OF WORK:- SUPPLYING & FIXING COMPUTER SPARE PARTS, OFFICE STATIONERY, PRINTING & BINDING OF OFFICE DOCUMENTS**

Sr. No.	Item / Description	Qty	Rate	Unit
1	Toner cartridge for HP laser jet 6L printer.	01 No.		Each
2	Floppy diskettes HD 1.44 MB.	01 No.		Each
3	Computer Paper A4 size, 80 grams.	01 Ream		P. Ream
4	Fortress "UPS" repair I/c replacement of defective batteries.	01 Job		P. Job
5	Increasing Computer memory from 16 MB to 64 MB.	01 Job		P. Job
6	Supplying Programme CDs.	01 No.		Each
7	Servicing Computer set "COMPAQ" Desktop ( i.e. PC, Monitor, Printer & UPS).	01 Job		P. Job
8	Intel Pentium--IV (GHZ®).	01 No.		Each
9	Intel D--845 GV/GL Board	01 No.		Each
10	4GB Ram (Kingston)	01 No.		Each
11	80 GB Hard Disk (7200 RMP)	01 No.		Each
12	CD Write (Samsung)	01 No.		Each
13	Key Board + Mouse M/ Media	01 No.		Each
14	17" Digital Monitor	01 No.		Each
15	Speaker 120 Volts M/Media	01 No.		Each
16	Scanner HP Color Jet	01 No.		Each
17	Printer HP Laser Jet	01 No.		Each
18	Fax Modem 56 KBPS.	01 No.		Each
19	UPS (Liquid Battery Type).	01 No.		Each
20	USB Flash Memory 8GB	01 No.		Each
21	Computer Table	01 No.		Each
22	Combo / CD (R.W)	01 Job		P. Job
23	Window Installation	01 Job		P. Job
24	Re-Filling of Printer Cartridge.	01 No.		Each

<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
25	Printer Cartridge (Laser Jet 1020).	01 No.		Each
26	Drum (Different brand Printer)	01 No.		Each
27	Printer Repair/ Service	01 Job		P. Job
28	Computer Chair	01 No.		Each
29	Typing Paper Double sheet.	01 Ream		P. Ream
30	Double sheet paper lined.	01 Ream		P. Ream
31	Typing Paper Single sheet.	01 Ream		P. Ream
32	File Cover Pacca.	01 Dozen		P. Dozen
33	Carbon Paper (Butter-Fly).	01 Packet		P. Packet
34	File Cover Katcha.	01 Dozen		P. Dozen
35	Register 100 Page.	01 No.		Each
36	Paper Pins.	01 Packet		P. Packet
37	Register 400 page.	01 No.		Each
38	Stapler Pins	01 Set		P.Set
39	Calculator	01 No.		Each
40	Ball Pen	01 Dozen		P. Dozen
41	Pencil HB	01 Dozen		P. Dozen
42	Rubber & Sharpener	01 Dozen		P. Dozen
43	Envelops (small size)	01 No.		Each
44	Envelops (Medium size)	01 No.		Each
45	Envelops (Large size).	01 No.		Each
46	Red Cloth	01 Meter		P. Meter
47	Table Set with calendar	01 Set		P.Set

Sr. No.	Item / Description	Qty	Rate	Unit
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**(Part-F)**

**NAME OF WORK:- DE-WEEDING / DE-SILTING OF DRAINAGE NETWORK INCLUDING RAISING & STRENGTHENING OF BANKS THROUGH HYDRAULIC EXCAVATOR MACHINE (WHEEL / CHAIN TYPE)**

Sr. No.	Item / Description	Qty	Rate	Unit
1	Engaging Excavator Machine (Wheel Type) on hire basis for De-Silting/ De-Weeding of Main Drain, Branch Drain, Sub-Drain & Disposal Channels of Tube wells, including P.O.L etc.	01 Hr		P-Hour
2	Engaging Excavator Machine (Chain Type Small Boom) on hire basis for De-Silting/ De-Weeding of Main Drain, Branch Drain, Sub-Drain & Disposal Channels of Tube wells, including P.O.L etc.	01 Hr		P-Hour
3	Engaging Excavator Machine (Chain Type Long Boom) on hire basis for De-Silting/ De-Weeding of Main Drain, Branch Drain, Sub-Drain & Disposal Channels of Tube wells, including P.O.L etc.	01 Hr		P-Hour
4	Engaging Tractor with front Blade i/c Fuel & Driver etc.	01 Hr		P-Hour
5	Supply Wooden Panjar 8" x 10' long.	01 No.		Each
6	Engaging Cooley/ Un Skilled Labour.	01 Day		P-Day
7	Gunny Bags 1st Birth	01 No.		Each
8	Gunny Bags 2nd Birth	01 No.		Each
9	Empty Jute bags (katta).	01 No.		Each
10	Manjhandri Panjors 8 x 10	01 No.		Each
11	U-clip Panjors 10' x 12'	01 No.		Each
12	Bubble Munnas 8 x10	01 No.		Each
13	Bellies/ Warras 15' to 20' long" 12" girth.	01 No.		Each
14	Thoonies 10' X 12' long 9" to 10" girth.	01 No.		Each
15	Lia Panjors 8 x 10	01 No.		Each
16	Suzuki Pickup without P.O.L on hire with Driver.	01 Day		P-Day
17	Dotson Pickup without P.O.L on hire with Driver (24 Hours)	01 No.		Each
18	Supply Tractor with Front Blade	01 Hr		P.Hour
19	Supply Tractor with Back Blade.	01 Hr		P.Hour
20	Supply Tractor with Trolley on hire basis with P.O.L	01 Day		P.Day
21	Water Tanker i/c Tractor with POL with Driver on Hire	01 Hr		P.Hour
22	Supplying Loader with Driver and P.O.L on hire.	01 Hr		P.Hour



<b>Sr. No.</b>	<b>Item / Description</b>	<b>Qty</b>	<b>Rate</b>	<b>Unit</b>
23	Supplying Dumper with P.O.L with Driver on hire.	01 Hr		P.Hour
24	Supplying Boat on hire with Boatman	01 Day		P.Day
25	Supplying Labour for observing sounding.	01 Day		P.Day
26	Supplying labour (Un-Skilled)	01 No.		Each
27	Supplying Skilled labour.	01 No.		Each
28	Generator on hire for 10 hours with all accessories with P.O.L.	01 No.		Each
29	Cloth for flag (Different Color)	01 Meter		P. Meter
30	Lime Un-Slacked.	01 K.g		P.Kg
31	Pit sand	01 % Cft		Per % Cft
32	Saver 24 Watt Blub	01 No.		Each
33	Black Bitumistic Paint (Berger)	01 Litter		P. Litter
34	Red (Oxide Berger) 3.64 letters tin	01 Tin		P. Tin
35	White pain (Berger) 3.64 tin	01 Tin		P. Tin
36	Gray paint (Berger) 3.64 tin	01 Tin		P. Tin
37	Painting corrugated Surface penal rusting etc without paint.	01 No.		Each
38	Painting brush (Universal 2" double).	01 No.		Each
39	Painting brush (Universal 4" double).	01 No.		Each