

SCHEDULE OF QUANTITIES (PRICE BID FORMAT)

NOTES:

1. All the items are broadly specified in SOQ, however for detail specifications refer to **PART-A(i) TECHNICAL SPECIFICATIONS**
2. No alteration what so ever is to be made to the text or quantities of this schedule unless such alteration is authorised in writing by IPR. Any such alterations, notes or additions shall, unless authorised in writing, be disregarded when tender documents are considered.
3. All the system parts, equipments shall be offered strictly as per the approved make only; deviation may be liable for rejection. The Bidder may additionally submit quotations for any alternative equipment proposed by them, however, prices for each items listed in this schedule must be clearly and completely filled in.
4. In the event of error occurring in the amount column of the schedule, as a result or wrong extension of the unit rate and quantity, the unit rate quoted by the Bidder shall be regarded as firm and the extensions shall be amended on the basis of the same rates.
5. **The rate of each item of work included in the Schedule of quantities shall, unless expressly stated otherwise, includes cost of**
 - All materials, fixing materials, accessories, operation, appliances, tools, plant, equipments, transport, labour and incidentals required in preparation for and in the full and entire execution, testing balancing, commissioning and completion of the work called for in the item and as per specifications and drawings.
 - Wastage on materials and labour.
 - Loading, transporting, unloading, handling/double handling, hoisting to all levels, setting, fitting and fixing in position, protecting, disposal of debris and all other labour, necessary for the full and entire execution and to fully complete the job in accordance with contract documents, good practice and recognized principles.
 - Liabilities, obligations and risks arising out of conditions of contract.
6. The specifications and drawings wherever available, are to be read as complimentary to and part of the Schedule of quantities and any work called for in shall be taken as required.
7. In the event of conflict between Schedule of quantities and other documents including the specifications, the most stringent shall apply and the interpretation of the Engineer / Scientist In charge shall be final and binding.
8. All equipments, quantities and technical data indicated in this Schedule (SOQ) are based on the engineering by IPR. These quantities shall be adjusted / amended after detail engineering and in accordance with the actual requirement after the approval of drawings and specifications. Contractor shall be paid for the actual quantity of work executed by him based on joint measurements in accordance with the approved drawings at the contract rates.
9. The systems to be installed within the IPR campus site as shown in layout drawings. The contractor has to prepare piping layout to suit the site conditions / system layout. The Bidder has to take into account the necessary bends, fittings like elbow, tees, reducers etc. while submitting price bid. The SS mountings like nipples / couplings / adaptors etc. for thermowell and other instruments should also to be considered while quoting for instruments.
10. The Bidder may visit the site at their own cost to have an idea of the complexity involved in the system, prior to quote if they desire (Contact person: Mr. Sudhir Kumar Sharma, Phone no.: 079-23962229 or 23962230)
11. The Bidder shall provide rates for all the items / sizes.

PRICE BID FORMAT

(Bidders are requested to offer their price bid in the following format)

SCHEDULE OF QUANTITIES

Sr. No	Item Description	Qty	Unit	Unit rate (in Rs.)	Total rate (in Rs.)
1.	<p><u>COOLING TOWER:</u></p> <p>Supply, installation, testing and commissioning of 975 kW capacity FRP Induced draught, counter-flow cooling tower. Cooling Tower shall be complete with FRP basin, casing, HDG steel supports & ladders, propeller fans, virgin PVC fills, eliminators, nozzle, HDPE distribution system, class of insulation "F", IP55, TEFC induction motor suitable for 415±10% V, 50 Hz, 3φ power supply, weather cover for motor, make up, quick fill connections, drain, overflow etc., Local emergency stop push switch with all controls at cooling tower area. It also includes the preparation of RCC foundation as per OEM of Cooling Tower.</p> <p>Tower selection: On following design conditions: Water Inlet Temperature : 45 °C Water outlet Temperature : 32 °C WBT : 29 °C Approach : 3 °C Range : 13 °C (45 °C – 32 °C) Flow Rate : 990 LPM</p> <ul style="list-style-type: none">FRP Induced Draught Cooling Tower as described above with nominal capacity of 975 kW and with float valves and all other accessories. <p>Note: Cooling Tower Should be design to remove for 975 kW by increasing the flow rates with keeping the in/out temperature as per above</p>	01	No.		
2.	<p><u>PLATE TYPE HEAT EXCHANGER (PHE):</u></p> <p>Supply, Installation, testing and commissioning of 900 kW Plate type Heat Exchanger to isolate and transfer the heat load from primary to secondary water loops. The PHE should be installed on the RCC foundation. Plate material should be SS 316. PHE Hot side (primary loop) will be connected to SS line and cold side (secondary loop) connected to MS line of Cooling Tower. The pressure drop across the PHE should be less than 0.5 bar and fouling factor ≤0.0005 (FPS unit). Necessary work for proper installation of</p>	01	No.		

PART-B

	<p>PHE will be carried out by the contractor. The PHE should be made of SS 316 plates with EPDM / suitable gasket materials, being compact, efficient, economical and easily maintainable.</p> <p>PHE selection: On following design conditions:</p> <p style="text-align: center;">Hot side:</p> <p>Media: DM water Flow: 390 LPM PHE inlet: ~63 °C (Max. 73 °C @ 210 LPM for 550 kW) PHE outlet: ≤ 35 °C Maximum working pressure: 6 bar</p> <p>Cold side:</p> <p>Media : Soft water Flow: 990 LPM PHE inlet: ~32 °C PHE outlet : ≤ 45 °C @ 990 LPM Maximum working pressure: 6 bar</p> <p>PHE with capacity of:</p> <ul style="list-style-type: none"> • PHE of 900 kW as described above <p>Note: PHE should be design to transfer for 900 kW by increasing the flow rates in hot/cold side with keeping the in/out temperature as per above.</p>				
3.	<p><u>PROCESS PUMP SETS (DM WATER PUMP SS):</u></p> <p>Supply, installation, testing and commissioning of centrifugal back pull out (BPO) type pump with base frame and class of insulation “F”, IP55, TEFC induction motor for circulation of DM water. Pump-motor sets shall be suitable for 415±10% v, 50 Hz, 3φ AC power supply equipped with Mechanical seal. Quoted price shall also include vibration isolation, pump foundation, motor canopy of GI sheet and all other associated accessories and works.</p> <p><u>Pumps with total SS construction:</u></p> <p>Head on pump : 35 MWC (Differential) Water flow rate : 390 LPM Motor HP : 7.5 HP or suitable</p> <ul style="list-style-type: none"> • The pump casing shall be of SS. MOC of impeller shall be SS 304/316, hydraulically balanced keyed to shaft. Shaft should be of SS. Shaft sleeve shall be of SS 304 / SS 316 extending through stuffing boxes. <p>Performance: All the pumps must perform according to selected duty point and respective performance curve. Pre-dispatch performance test and site performance test shall conform the design / required performance</p> <ul style="list-style-type: none"> • Pump set as described above: (1W+1S) 	02	Nos.		

PART-B

4.	<p><u>MIXED BED POLISHING UNIT:</u></p> <p>Supply, installation, testing and commissioning of MSRL (MS Rubber lined)/ FRP body MIXED BED on-line polishing unit with flow, pressure and conductivity measuring instruments, first charge of resins, necessary type, size and length of frontal piping, valves, other accessories, supports, vibration isolation with following water quality requirement. Pr. drop across process vessels not to exceed 6 MWC. Conductivity meter sensor with field mounted transmitter cum display unit shall be installed near the Mixed bed polishing unit. Conductivity meter range: 0 – 2 μS/cm and Transmitter output: 4-20 mA (2-wire).</p> <p>DM water output quality \leq 1 μS/cm at Max. water treatment rate of 1.8 m³/hr. with DM water at @ 30-40 μS/cm, OBR (Out Put between Regeneration): 30 m³ per MB unit, inlet temp. < 60°C.</p> <ul style="list-style-type: none"> • DM water polishing unit with instruments as described above. 	01	Nos.		
5.	<p><u>MB WATER PUMP SET (SS):</u></p> <p>Supply, installation, testing and commissioning of centrifugal back pull out (BPO)/Mono block type pump with base frame and class of insulation “F”, IP55, TEFC induction motor for circulation of DM water. Quoted price shall also include vibration isolation, pump foundation, motor canopy of GI sheet and all other associated accessories and works.</p> <p><u>Pumps with total SS construction:</u> Head on pump : 30 MWC (Differential) Water flow rate : 30 LPM (1.8 m³/hr.) Motor HP : 1 HP or suitable</p> <ul style="list-style-type: none"> • The pump casing shall be of SS. MOC of impeller shall be SS 304/316, hydraulically balanced keyed to shaft. Shaft should be of SS. Shaft sleeve shall be of SS 304 / gun metal extending through stuffing boxes. <p>Performance: All the pumps must perform according to selected duty point and respective performance curve. Pre-dispatch performance test and site performance test shall conform the design / required performance</p> <ul style="list-style-type: none"> • Pump set as described above: (1W) 	01	Nos.		
6.	<p><u>COOLING TOWER PUMPS SETS (CI):</u></p> <p>Supply, installation, testing and commissioning of centrifugal back pull out (BPO) type pump with base plate and class of insulation “F”, IP55, TEFC induction motor, for circulation of cooling tower water. Pump-motor sets shall be suitable for 415\pm10% v, 50 Hz, 3ϕ AC power supply equipped with Mechanical seal. Quoted price shall also</p>	02	Nos.		

PART-B

	<p>include vibration isolation, pump foundation, motor canopy of GI sheet and all other associated accessories and works.</p> <p style="text-align: center;">Pump set for cooling tower system</p> <p>Head on Pump : 25 MWC (Differential) Water flow rate : 990 LPM Motor HP : 15 HP or suitable.</p> <ul style="list-style-type: none"> The pump casing shall be of CI. MOC of impeller shall be Gun metal/ bronze and hydraulically balanced keyed to shaft. Shaft should be of SS. Shaft sleeve shall be of SS 304 / gun metal/ suitable extending through stuffing boxes. <p>Performance: All the pumps must perform according to selected duty point and respective performance curve. Pre-dispatch performance test and site performance test shall conform the design / required performance</p> <p>• Pump set as described above: (1W+1S)</p>				
7.	<p><u>ELECTRICAL WORKS:</u></p> <p>Supply, installing, testing and commissioning of electrical panel for pumps, cooling tower fan etc. fabricated from 16 SWG MS sheet duly painted with epoxy paint with necessary rated main incoming MCCB of suitable rating. Outgoing feeder for DM water pumps, CT water pumps, cooling tower fan and MB Pump with MCCB and star/delta starters. Panel shall have contactors, relays, Cu busbar, earth busbar, voltmeter, ammeter, selector switches, indicating lamps, cable alley, compartment with terminals other accessories etc. including all necessary control wiring with using Cu conductor PVC insulated wires. The above electric control panel should be suitable for process DM water pumps, CT water pumps, CT fan and MB Pump. The complete scheme with single line diagram to be approved by the IPR. The complete electrifications shall be done as per IE rules and ISI specifications complete as per instruction of IPR Engineer-in-Charge. Provision of two 16 Amps TPN MCB as spare is also included in the scope.</p> <p>Main Electrical panel with all accessories and wiring complete as described above</p>	01	Job		
8.	<p><u>ELECTRIC CABLES:</u></p> <p>Supply, laying, termination, testing and commissioning of following Cabling / wiring / earthing / 14 SWG GI perforated cable trays as per the system requirements:</p>				
	(i) 3C x 6 mm ² Copper conductor armoured Power Cables.	75	RMT		
	(ii) 3C x 4 mm ² Copper conductor armoured Power Cables.	30	RMT		

PART-B

	(iii) 3C x 2.5 mm ² Copper conductor armoured Power Cables.	30	RMT		
	(iv) 3C x 1.5 mm ² Copper conductor armoured control cables.	40	RMT		
	(v) 3 mm dia. Copper wire for earthing	60	RMT		
	(vi) 3 mm X 25 mm Copper strip for earthing	30	RMT		
	(vii) 200 mm wide/ Suitable GI perforated cable trays	12	RMT		
	(viii) 100 mm wide/ Suitable GI perforated cable trays	15	RMT		
9.	<p><u>SS PIPING:</u></p> <p>Supply, fabrication, installation, testing and commissioning of following SS 304 pipes cut to required lengths and installed with all welded joints, necessary fittings, like elbows, flanges, tees, bends (Long/short radius), reducers, weldolet, metric thread SS nut-studs fasteners sets, PTFE / eq. gaskets (Sch-10) etc. The cost of piping includes the cost of required fittings and accessories and it will be measured in piping as per measurement procedure defined in tender.</p> <p><u>Schedule 10/40 pipe, fittings and flanges.</u></p>				
	(i) 65 NB Sch.10 ERW	20	RMT		
	(ii) 50 NB Sch.40 Seamless	50	RMT		
	(iii) 40 NB Sch.40 Seamless	60	RMT		
	(iv) 32 NB Sch.40 Seamless	50	RMT		
	(v) 25 NB Sch.40 Seamless	10	RMT		
10.	<p><u>MS CLASS 'C' PIPING FOR COOLING TOWER:</u></p> <p>Supply, fabrication, installation, testing and commissioning of following MS class 'C' pipes cut to required lengths and installed with all welded joints, necessary fittings like flanges, elbows, tees, reducers, metric thread nut-studs fasteners sets, gasket, purge tapings, drain points with valve etc. Including necessary supports.</p> <p><u>MS Class 'C' piping, fitting and flanges:</u></p>	20	RMT		
	(i) 100 NB				
11.	<p><u>GI CLASS 'B' PIPING:</u></p> <p><u>For cooling tower make up / drain water piping:</u></p> <p>Providing and fixing in position the following GI class 'B' pipes cut to required lengths and installed with all screwed joints, all fittings including necessary size and quantity of flanges, elbows, tees, reducers, nipples, couplings, gaskets, hard wares, purge, drain points etc. Including necessary supports with necessary cleaning including wrapping coating with hessian cloth over black Japan paint to pipes including excavation, back filling the same etc. complete for underground pipes, complete as per</p>	50	RMT		

PART-B

	<p>instruction of Engineer-in-Charge.</p> <p>(i) 25 NB dia.</p>				
12.	<p><u>NON CONDUCTIVE RUBBER HOSE PIPES:</u></p> <p>Providing and fixing in position of 40 NB (38 mm ID) flange ended nonconductive rubber flexible hose of minimum 10 bar working pressure, minimum burst pressure 19 bar, minimum working temp range 10 °C to 85 °C, cut to required lengths of approx. 2 to 3 m each and installed with matching size / class crimped SS flanges. This also includes the supply of metric thread SS nut-studs fasteners sets and PTFE / eq. gaskets etc.</p>	04	Nos.		
13.	<p><u>BUTTERFLY VALVES (SS):</u></p> <p>Providing and fixing in position of following wafer type Butterfly Valves with total SS 304/ CF8 construction including body of PN-10 / class 150 with bubble tight shut off, replaceable EPDM/Teflon seat, high Cv values, position indicator, centering lugs, locking lever MS handle, including matching flanges and metric thread SS nut-studs fasteners sets. The MOC of disc & stem should be SS 316.</p>				
	(i) 65 NB, PN-10/ Class 150	10	Nos.		
14.	<p><u>FLANGE ENDED BALL VALVES (SS 304):</u></p> <p>Providing and fixing in position of following three piece full bore Ball valves with total SS 304, Class 150/300 construction including body with bubble tight shut off and replaceable Teflon seat. This also includes matching flanges, metric thread SS nut-studs fasteners sets and PTFE gaskets.</p>				
	(i) 40 NB, Class 150	07	Nos.		
	(ii) 32 NB, Class 150	12	Nos.		
	(iii) 25 NB, Class 150	08	Nos.		
15.	<p><u>GLOBE VALVES (SS 304):</u></p> <p>Providing and fixing in position of following Globe valves with total SS 304L, Class 150/ Class 300 construction. This also includes matching flanges, metric thread SS nut-studs fasteners sets and PTFE gaskets.</p>				

PART-B

	(i) 65 NB, Class 150	01	Nos.		
	(ii) 32 NB, Class 150	02	Nos.		
16.	<u>NON RETURN VALVE (SS 304):</u> Providing and fixing in position of following wafer type single flapper Non return valve – Class -150, with total SS 304 construction, wetted parts, including matching flanges and metric thread SS nut-studs fasteners sets for DM Water pumps.				
	(i) 65 NB, Class 150	02	Nos.		
	(ii) 25 NB, Class 150	01	Nos.		
17.	<u>Y-STRAINER (SS 304):</u> Providing and fixing in position of following class 150 - Y strainers, with CF8 / CF8M (SS 304 / 316) casted body and SS 304/316 filter element of 100 mesh including matching flanges, metric thread SS nut-studs fasteners sets and PTFE gaskets.				
	(i) 65 NB, Class 150	02	Nos.		
	(ii) 25 NB, Class 150	01	Nos.		
18.	<u>PRESSURE SAFETY VALVE (SS 304):</u> Providing and fixing in position of Self acting spring loaded Pressure safety valves on SS tank with total SS 304, Class 150 construction for tank safety of pressurizing. This also includes metric thread SS nut-studs fasteners sets and PTFE gaskets. <u>Technical data:</u> Inlet pressure: 1 to 5.0 bar Outlet pressure: Atmosphere				
	(i) Size: 40 NB (Set Pressure- 1.5 bar)	01	Nos.		
19.	<u>VACUUM RELIEF VALVE (SS 304):</u> Providing and fixing in position of Self acting vacuum relief valves on SS tank with total SS 304, Class 150 construction for tank safety of squeezing. This also includes metric thread SS nut-studs fasteners sets and PTFE gaskets. <u>Technical data:</u> Tank pressure: Up to 2.5 bar				
	(ii) Size: 50 NB (Outlet Set Pressure: -25 mmwc)	01	Nos.		
20.	<u>BUTTERFLY VALVE (CI/ CS):</u> Providing and fixing in position the following PN-10/ Class 150 Wafer type Butterfly valves center disc type, with slim seal, CI/ CS body, all SS wetted parts, position indicator, centering lugs,				

PART-B

	locking lever handle, bubble tight shut off, replaceable EPDM/Teflon seat, high Cv values including matching flanges and metric thread nut-studs fasteners sets for cooling tower loop.				
	(i) 100 NB, PN-10/ Class 150	10	Nos.		
21.	<u>NON RETURN VALVE (CI):</u> Providing and fixing in position of following wafer type dual-plate/ single plate flapper Non return valve - Class -150, CI body and all SS 304 wetted parts , including matching flanges and metric thread nut-studs fasteners sets for cooling tower water pumps.				
	(i) 100 NB, Class 150	02	Nos.		
22	<u>BALANCING VALVE (CI/GM):</u> Providing and fixing in position of following flange ended Balancing valves - Class 150, CI/ GM body with flow measurement accessories and position indication, including matching flanges, metric thread nut-studs fasteners sets and PTFE gaskets for cooling tower loop.				
	(i) 100 NB, Class 150 (CI)	01	Nos.		
23	<u>POT STRAINER (CI):</u> Providing and fixing in position of following Class 150 flange ended Pot strainers , with CI/MS casted body and SS 304 filter element of 20 mesh / suitable including matching flanges, metric thread nut-studs fasteners sets and PTFE gaskets for cooling tower loop.				
	(i) 100 NB, Class 150 (CI)	01	Nos.		
24	<u>PRESSURE GAUGES:</u> Providing and fixing in position, water pressure gauges with all SS accessories like shutoff needle valve, siphon pipe, etc. with Range - 0 – 10 bar, Accuracy $\pm 1\%$ FSD and Dial size 100 mm.	24	Nos.		
25	<u>TEMPERATURE GAUGES:</u> Providing and fixing in position the dial type industrial Temperature gauges with all SS accessories like thermowell etc. Range - 0 – 100 °C, Accuracy $\pm 1\%$ FSD and Dial size 100 mm.	15	Nos.		
26	<u>RTD TEMPERATURE SENSOR CUM TRANSMITTER:</u> Providing and fixing in position the PT-100 RTD sensor with aluminum head mounted temperature transmitter giving output of 4 – 20 mA (2-wire) to DACS with all SS mounting accessories like thermowell etc.. Range 0 – 100 °C. Accuracy $\pm 0.5\%$ FSD. Cable length up to 5 m length to be included in the cost of each instrument / sensor.	05	Nos.		

PART-B

27	<p><u>PRESSURE SENSOR CUM TRANSMITTER:</u></p> <p>Providing and fixing in position, water pressure sensor cum transmitters with all SS mounting accessories, needle isolation valve and 4 – 20 mA (2-wire) output to DACS. Range 0-10 bar. Accuracy \pm 0.5% FSD. Cable length up to 5 m is to be included in the cost of each instrument / sensor.</p>	01	Nos.		
28	<p><u>CONDUCTIVITY METER FOR TANK OUTLET:</u></p> <p>Providing, fixing in position conductivity sensor with field mounted transmitter cum display unit. Sensor cell constant K=0.01. Conductivity range: 0 – 10 μS/cm. Transmitter output: 4-20 mA (2-wire). Power Supply: 12 to 24 VDC. Mounting: Panel Mounted. Temperature Compensation: Auto and Sensor cable length up to 8 meter. Accuracy: \pm1 % FSD. SS flow through chamber with 1/2”NPT (F) connections and sensor mounting provision should be supplied with conductivity meter. Flow through chamber MOC: SS, Process connection: 3/4” NPT(M)</p>	01	Nos.		
29	<p><u>SIGNAL SPLITTER (SINGLE INPUT DUAL OUTPUT):</u></p> <p>Providing and fixing in position inside junction box of signal splitter. Signal type: 4-20 mA, single input dual output, Mounting: DIN rail.</p>	02	Nos.		
30	<p><u>INSTRUMENTATION CABLE & CONTROL CABLE:</u></p> <p>Supply, laying, termination, testing and commissioning of following signal cables and control cables for instruments like Flow meter, Pressure transmitter, Temperature transmitter, pH meter, conductivity meter and pneumatic valves:</p>				
	(i) 2C x 1.0 sq. mm / suitable Cu screened & shielded armoured instrumentation cable (includes power signal also).	90	RMT		
31	<p><u>JUNCTION BOX FOR DISPLAY PANEL:</u></p> <p>Supplying, fixing, installation and testing of junction box made from 18 SWG CRC sheet, duly powder coated painted (Siemens Gray shade) of required sizes for fixing display panels of flow meter, pressure sensor and temperature sensors etc. It also includes the supply and fixing of required qty. of connector/ TB, MCB and 24 Volt SMPS for instruments power supply.</p>	02	Nos.		
32	<p><u>MS STRUCTURE WORKS:</u></p> <p>Supply, fabrication, installation of minor MS / SS Supports for supporting piping at the site to suit the system requirements with anti corrosion painting on MS.</p>				
	i. MS support structure work including plates / channels / angles/ pipes etc.	500	Kg		
	ii. SS304 support structure work including	125	Kg		

PART-B

	plates / channels / angles/ pipes etc.				
33	<p><u>SS 304 DM WATER STORAGE TANK:</u></p> <p>Design, fabrication, supply, installation and testing of SS 304 DM water storage tank with proper drain, vent, inlet / outlet water nozzle connections, instrument ports with necessary stiffening/ supports, air tight openings/ manholes-covers on top, site glass level indicator with isolation valve as per the specifications/Drawing with necessary floating PCC / RCC / MS foundation. (Enclose drawing for the tank with all details). Maximum internal operating pressure of the tank shall be 2.5 bar.</p> <p>Tank design : As per IS 2825 - 1969 (Code for unfired pressure vessel)</p> <ul style="list-style-type: none"> • Material of construction, SS plate, angle and/or channel, with proper supports. • Thickness of wall/side/top/bottom- 5mm. • Capacity 2500 L <p>DM water Storage Tank with all accessories as described above.</p>	01	Nos.		
34	<p><u>THERMAL INSULATION FOR RETURN PIPE LINES:</u></p> <p>Supply, installation and testing of thermal insulation on following return SS pipe lines including fittings like valves, flanges, unions etc. from LLMHD system to PHE inlet within lab and exposed area by minimum 9 mm thick Closed-cell Elastomeric EPDM/ Nitrile rubber as described in technical specifications with aluminium cladding. Insulation material should be Class-O, fire-retardant & self-extinguishing. Aluminum cladding should be of 26 SWG. Test certificates to be furnished.</p>				
	5.65 NB (9 mm thk. insulation with 26 SWG aluminium cladding)	10	RMT		
	6.50 NB (9 mm thk. insulation with 26 SWG aluminium cladding)	25	RMT		
	7.40 NB (9 mm thk. insulation with 26 SWG aluminium cladding)	10	RMT		
35	<p><u>MINOR CIVIL WORK AND OTHER WORKS</u></p> <ul style="list-style-type: none"> • The cooling tower, pump, PHE and tank shall be mounted on a concrete foundation. This includes proper mounting, grouting of base for cooling tower, pumps, PHEs, Tank and MB unit. • Painting work with approved shade on cooling tower MS line, Piping Support, CT makeup lines etc. 	01	Job		

PART-B

	<ul style="list-style-type: none"> Other necessary civil work like making slots/hole in the wall/RCC to run the pipe at desired location. After that remaining space around the pipe will be properly sealed. During the work execution all necessary civil work/structure work/electrical work should be carried out by contractor. After completion of the work, site should be properly cleaned. Installation of "Free Issue Material" as mentioned in tender documents including supply of required quantity and size of mating flanges and metric thread nut-studs fasteners sets and PTFE gaskets. Whole work must be carried out to IPR satisfaction and as per the instructions of IPR Engineer-in-Charge. 				
	Total Price, in Rs. from Sr. No. 1 to 35 (In Figures)				

Total Price in words

.....

	Indicate percentage except Freight			
	Percentage	Amount	Included*	Excluded*
Packing and forwarding				
Excise Duty				
Sales Tax/VAT				
Service Tax				
Insurance				
Freight (Rs.)	Rs.			

*** Filling of tick marks (√) either in included or in excluded column for each in above table is mandatory.**

PART-B

Important Note:

- IPR reserves the right to add / delete any or all of the items mentioned in SOQ.
- Bidder must understand all the specifications, terms & conditions of this tender thoroughly, visit the site and contact the Engineer-in-Charge for any clarification if necessary.
- **Deviations if any shall be clearly specified on separate sheet with all details.**
- **The bidder should sign all pages in token of acceptance of the terms and condition, scope of work and all the specifications and return the same to us.**

Place:

Signature of Bidder with official seal

Date: