

Lot 5: Project District - Sivasagar						
Line Item No.	Description of Goods	Quantity	Physical unit	Final (Project Site) Destination as specified in BDS	Delivery (as per Incoterms) Date (Bid Security in INR39,000.00)	
					Earliest Delivery Date	Latest Delivery Date [to be provided by the bidder]
	solution for nitrate electrode, NIST traceable Standard solution for 1000 mg/L of Fluoride & Nitrate - 500 ml of each type, variable volume micropipette 1-5 ml with micro-tip (100 nos.) - 1 set & any other consumables required for Fluoride & Nitrate analysis.					
25	Fume cup board * Work table size 91.44cm x 60.96cm x 60.96 cm * exhaust ducting * table material: granite * outer mild steel body	1	No.			
26	Auto Burette (100 ml capacity, Automatic Zero, Accuracy as per Class A IS 1997: 2008 / ISO 385: 2005, With Reservoir, Rubber Bellow, PTFE Stopcock With Certificate)	1	No.			
27	Auto-Pipette * Single channel Variable Volume automatic pipette * air-displacement type * Conformity * Certified with Individual Work Certificate * Range: 500 - 5000 µl * Division: 10 µl * Accuracy $R \leq \pm 0.8$	1	No.			
28	Thermometer * Range -20°C to 250°C * displays both in Fahrenheit & Centigrade scale/ inter switchable * accuracy - $\pm 0.2^\circ\text{C}$ * resolution- 0.1° * water resistant	1	No.			
29	Single Stage distillation apparatus * Output - 5 litres * auto cut * metallic stand * complete with other accessories * 230 volts	1	No.			
30	Quartz Distillation apparatus Dist. Water Output Cap (Approx) - 5 Ltr/Hr, 230-250 Volts Single phase 4.4kw, Cooling Water consumption - 60 Ltr/Hr, Pyrogen free, PH 6-7, Conductivity -S/cm-<3 x 10-6, Distillate Temperature 65-750C, with Distillation Apparatus Power Supply (DAPS), Quartz boiler, Borosilicate Condenser and Quartz Condenser, Distillation Unit, Single Stage, All Quartz (Boiler & Condenser), with Built-in Quartz Heater, Vertical	1	No.			



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	Panel Mounted to be complete with low water level cut-off device, Conductivity of distilled water should be around 2 us/cm or less.					
31	Kjeldal distillation apparatus					
	* unit of 6 test mantle type	1	No.			
32	Pressure Pump					
	* Maximum pressure- 80 psi * rotation- 1400 rpm * Motor capacity- 1/6 HP * maximum power- 125 Watt * maximum current- 0.6 Ampere	1	No.			
33	Membrane filtration					
34	Deep Freezer					
	* -20°C * horizontal	1	No.			
35	Micropipette					
	* variable volume of 0.5 µl to 10µl	1	No.			
36	Centrifuge machine with rotors					
	* Microprocessor Based * Maximum Speed 5200 rpm * Square MS body duly powder coated * Double walled light weight ABS Lid. * Fitted with Micro Processor based 2 lines 16 characters LCD panel for 0-59 minute Count-down timer * The unit should be supplied with rotor head of 8X15 ml swing out head & 16 nos * Centrifuge tube	1	No.			
37	Portable Chemical Field Test Kit					
	* Capable of testing 30 samples/ GPs	15	No.			
38	H2S Vials for Bacteriological testing					
	* 100 vials/GP for each of the 15 GPs	1500	No.			
39	Conical Flasks					
	*Flat bottom support * Conical body * Cylindrical neck * Graduated * complies with IS 915, ISO 1042 for volumetric flasks					
	100 ml capacity	16	No.			
	150 ml capacity	16	No.			



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					Earliest Delivery Date	Latest Delivery Date
	250 ml capacity	30	No.			Bidder's offered Delivery date [to be provided by the bidder]
	500 ml capacity	16	No.			
	1000 ml capacity	6	No.			
40	Beakers					
	* Flat bottom * cylindrical shape * small spout for clean and precise pouring * graduated to indicate the exact content					
	100 ml capacity	16	No.			
	250 ml capacity	16	No.			
	500 ml capacity	16	No.			
	1000ml capacity	8	No.			
	2000ml capacity	4	No.			
41	Ordinary Pipette					
	* Large bulb with a long narrow portion above with a single graduation mark * Calibrated for a single volume * accurate measurement and decanting of liquid * each pipette coded with unique number					
	5 ml capacity	8	No.			
	10 ml capacity	12	No.			
	20 ml capacity	8	No.			
	25 ml capacity	8	No.			
	50 ml capacity	4	No.			
42	Graduated Pipette					
	* Long tube with a series of graduations to indicate different calibrated volumes for delivery from zero mark to the last graduation marks					
	1 ml capacity	4	No.			
	5 ml capacity	6	No.			
	10 ml capacity	8	No.			
	20 ml capacity	4	No.			
43	Ordinary Burette					



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	* Straight tube with a graduation scale & a stop cock with one dispenser tube * No after drainage period * complies with ISO 385					
	25 ml capacity	8	No.			
	50 ml capacity	8	No.			
	100 ml capacity	1	No.			
44	Automatic Burette					
	* with automatic zero facility * mounted on a glass reservoir bottle, glass stop cock * rubber bellows * enamel graduations					
	50 ml capacity	1	No.			
45	Desiccators	4	No.			
	* Normal Desiccators * size 160 mm * for use with Disposable or Reusable Desiccant * complies with IS 6128 : specification for desiccators					
46	Reagent Bottles					
	* plain narrow mouth * no-drip pour lip * solid glass stopper to fit securely * autoclavable & sterilizable * with clear graduations					
	100 ml capacity	20	No.			
	250 ml capacity	35	No.			
	500 ml capacity	24	No.			
	1000ml capacity	10	No.			
	2000ml capacity	6	No.			
47	Sample Bottles					
	* Of food grade plastic * large labelling field * complete with screw cap and pouring ring					
	250 ml capacity	35	No.			
	500 ml capacity	35	No.			
	1000ml capacity	15	No.			
	2000ml capacity	8	No.			
48	Test Tubes					



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	* without rim * flat bottom - Approx O.D. x Length in mm - 12x75	1	No.			
	Packet of 100					
49	Durham tubes					
	* Neutral glass * round bottom * autoclavable * very clear & transparent * straight rim	300	No.			
50	Round bottom flasks					
	* Round bottom support					
	250 ml capacity	8	No.			
51	Measuring cylinders					
	* graduated * with pour spouts to facilitate pouring without any drips * prominent graduations * broad base for stability					
	10 ml	6	No.			
	50 ml	6	No.			
	100 ml	6	No.			
	250 ml	6	No.			
	500 ml	6	No.			
	1000ml	6	No.			
	2000ml	3	No.			
52	Measuring flasks					
	* with inter changeable solid glass stoppers * each flask engraved with individual serial number					
	5 ml	5	No.			
	10 ml	10	No.			
	25 ml	10	No.			
	50 ml	10	No.			
	100 ml	10	No.			
	250 ml	10	No.			
	500 ml	10	No.			
	1000 ml	5	No.			
53	Funnels					



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	75 mm diameter	5	No.			
	100 mm diameter	5	No.			
	125 mm diameter	2	No.			
54	Porcelain dish					
	Medium size	10	No.			
	Large size	6	No.			
55	Crucibles	8	No.			
56	Wash bottles	6	No.			
57	Standard joints					
	Grouted	24	No.			
	Bends	12	No.			
58	Glass rods					
	(Packet of 50)	1	No.			
59	Petri Dishes					
	* Diameter – 75 mm	100	No.			
60	Nessler Cylinders					
	* Graduated * maximum clarity					
	50 ml capacity	20	No.			
	100 ml capacity	20	No.			
61	Thermometers					
	* Digital type * display both in Fahrenheit & Centigrade scale					
	* accuracy up to ± 0.2 °C * resolution – 0.1 °C * usage of Min/ Max/ Hold button *					
	100 °C	2	No.			
	200 °C	2	No.			
	500 °C	1	No.			
62	Separating Flask					
	* Capacity - ml * Stopper at top to fit tightly * Stop cock at bottom to be well sealed	10	No.			
63	Stopper Bottles for dissolved Oxygen					



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					Earliest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
	* Each bottle and its stopper marked with a unique matching identification number	2	No.			



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					Earliest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
1	Digital pH meter * Conforms to National Accreditation Board for Testing and Calibration Laboratories (NABL) & National Institute of Standards & Technology (NIST) guidelines * automatic electrode recognition * built in GLP function * graphic LCD display of pH, ORP readings, temperature, electrode status, calibration points, battery life, date and time * hard & waterproof casing * Help Menu * pH Range: 0-14 pH * resolution: 0.01pH * accuracy: ± 0.01 pH * calibration point: Up to 5 * Buffer sets * auto temperature compensation * windows compatible software * USB cable for PC connection* rechargeable batteries & battery charger Portable pH meter * Multi-Point Calibration (up to 5 points) with Auto-Buffer Recognition - choice of USA * NIST or pure water buffer standards with ± 0.01 pH accuracy * Automatic Temperature Compensation (ATC) for the highest accuracy under * fluctuating temperatures * Hold Function momentarily freezes reading for easy viewing and recording * Auto-Power Off saves battery power after non-use * Self-Diagnostic with message codes for easy troubleshooting * Large Custom LCD provides optimum viewing even at a distance * Protective Rubber Boot shields meter from accidental knocks and features a sturdy built-in stand for easy bench-top operation * Rugged Carrying	1	No.	Guwahati, Assam, India	30 days from the date of issue of Notice to Proceed	60 days from the date of issue of Notice to Proceed



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					Earliest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
	<p>Case (Optional) provides handy on-site meter calibration and measurement.</p> <p>Technical specification:</p> <ul style="list-style-type: none"> * pH Range - 0.00 to 14.00 pH * Resolution & Accuracy- 0.01 pH & ± 0.01 pH * Temperature Range - 0 to 100.0 °C Resolution & Accuracy- 0.1 °C & ± 0.5 °C * mV Range -1000 to + 1000 mV * Resolution & Accuracy - 1 mV & ± 1 mV * Temperature Compensation-Automatic / Manual (0 to 100 °C) * No. of Calibration Points - Up to 5 points <p>The unit should be supplied with (i) Microprocessor based pH Meter with Single Junction pH Electrode, (ii) ATC Probe & pH Carrying Kit Set (Includes at least 1 x pH 4.01, (iii) pH 7.00 Buffer Solutions, (iv) Storage Solution & 1 x Deionised (Rinse) Water (50 ml Each), (v) 480 ml each of colour coded standard buffer solution pH 4.01 (red coloured), (vi) pH 7.00 (Yellow coloured) & pH 10.01 (Blue coloured), (vii) operating manual, carrying case.</p>					
2	Digital TDS meter					
	<ul style="list-style-type: none"> * Conforms to NABL & NIST guidelines * displays Conductivity, TDS and Temperature * automatic electrode recognition * built in GLP function * up to 1000 samples data set storage * range - 1 μS/cm to 200 mS/cm * windows compatible software * USB cable for PC connection <p>Portable Digital TDS meter</p> <ul style="list-style-type: none"> * Multi-Point Push-button Calibration (up to 5 points) with $\pm 1\%$ full scale accuracy * Automatic or Manual Calibration - for quick, easy calibration; use automatic mode * with pre-set calibration points at most popular values or manually set values 	1	No.			



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					Earliest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
	<p>in the manual mode for more flexibility * Auto-Ranging for Conductivity/TDS measurements for fast response and best resolution over wide measurement range * Adjustable TDS Factor for more accurate measurement (for TDS 6 model only)</p> <p>* Automatic Temperature Compensation (ATC) for the optimum accuracy under fluctuating temperatures * Hold Function momentarily freezes reading for easy viewing * Auto-Power Off saves battery power after non-use * Self-Diagnostic with message codes for easy troubleshooting * Large Custom LCD provides optimum viewing even at a distance * Electrode with Built-in ATC designed for minimal air bubble entrapment during measurement * Protective Rubber Boot shields meter from drops and features a sturdy built-in stand for easy bench-top operation.</p> <p>Technical specifications:</p> <ul style="list-style-type: none"> * TDS Range-0.00 - 9.99 ppm / 10.0 - 99.9 ppm/ 100 - 999 ppm / 1.00 - 9.99 ppt / 10.0 - 99.9 ppt * Resolution-0.05 % full scale Accuracy ± 1 % of full scale ± 1 LSD * TDS Factor-0.30 to 1.00 * Temperature Range-0.0 to 80.0 °C * Resolution-0.1 °C * Accuracy-± 0.5 °C * Compensation Automatic/Manual (0 to 80 °C) * Normalization 20.0 or 25.0 °C Operating Temperature-5 to 45 °C * Calibration Points-4 (1 per range) auto, 5(1 per range) manual Temperature Coefficient-0.0 - 10.0 % * Cell Constant-0.1, 1.0, 10.0 Auto-Off-20 min after last key pressed * Input-BNC, 2.5 mm phono socket Power-4 x 1.5 V 'AAA' 					



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	alkaline batteries to be included The meter should be supplied with (i) Basic meter with conductivity electrode with cell constant 1.0, (ii) TDS calibration solutions (50 ppm, 300 ppm, 3000 ppm), (iii) DI rinse water (60 mL each), (iv) Grip-Clip, (v) batteries in hard carrying case, (vi) operating manual & 480 ml of 300 ppm TDS calibration solution.					
3	Refrigerator * Capacity- 300 L * frost free * 5 star rating * double door * freezer type - top freezer * in built inverter	1	No.			
4	Water still * Distillation Unit made of Stainless steel * capacity 5 litre/ hour * wall mounting model - equipped with brackets for wall mounting * to work on 220- 230 volts AC supply	1	No.			
5	UPS/ Inverter * capacity- 3 KVA * 5 star rating * 6 hrs backup * with battery	1	No.			
6	Hot plate * Body to be fabricated out of thick mild steel sheet, duly finished in epoxy powder coated * The Hot Plate top to be made of Stainless steel thick sheet & smoothed duly finished should be firmly mounted on the body * Heavy duty heating elements should be securely laid under the plate to operate on 220/230V AC supply * Temperature in controlled by energy regulators fitted with an indicator lamp for the mains * To be supplied with main cord and plug. Technical Specifications: * Top plate size: 30 x 45cm * Load: 2 KW	2	No.			
7	Laboratory Heating mantel * Body has to be made of one-piece aluminium and is lagged with special mineral wool * The panel should be provided with on-off switch, energy control knob and pilot lamp * It should be	1	No.			



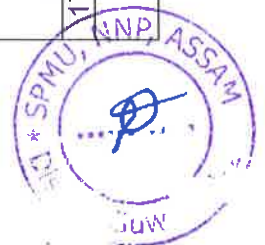
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					Earliest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
	provided with joint-less hand knitted heating nets of glass yarn capable of withstanding high temperature up to 400°C. Technical Specifications: * To be supplied complete with cord & plug to work on 220/230V AC supply a) Capacity: 500 ml b) Capacity: 1000 ml					
8	Autoclave * The outer chamber should be made of heavy gauge Stainless Steel Sheet duly polished * The inner chamber should be made of thick 304 Grade Stainless Steel Sheet. Lid should be made of thick machined high grade Stainless Steel plate * The unit should have Radial Locking arrangement made of high grade Stainless Steel duly polished with paddle lifting mechanism * The unit has to be fitted with Spring Loaded Safety Valve, Pressure Gauge, Pressure Release Valve, water Level Indicator, Drain Valve, Automatic Pressure Control Switch, Automatic Low Water Cut-off Device & automatic interval timer * The unit should be hydraulically tested to withstand up to 40 psi pressure * All internal joints of the unit should be Argon arc welded ground and polished to give crevice free internals * Moulded joint-less Silicon Rubber Gasket has to be provided for leak proofing * The unit would be electrically heated by flange type/immersion type heaters. To be supplied with Control Box, fitted with Mains & Heating Indicators, ON / OFF Switch, Cord & Plug to work on 220/230V, 50Hz, AC supply * Working chamber size: 300 mm X 500 mm (approximately 35 lit).	1	No.			
9	Magnetic stirrer * The body should be made of mild steel duly finished in epoxy powder coating and to be mounted with a stainless-steel top stirring has to be done by fractional horsepower motor, rotating	1	No.			



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	magnetic field applied below the liquid container * The stirring would be accomplished by a PTFE encapsulated magnetic needle to be placed in the liquid to be stirred * The unit should be supplied with pilot lamp, plug cord and continuously variable speed regulator * Maximum speed 1400 RPM. The unit shall be workable on 220/230V AC single phase. To be supplied with TWO PTFE coated magnetic needle (dia X length): 8x15mm & 8x25mm one each Stirring Capacity: Approximately. 2 lit					
10	Microscope * Binocular * with LCD display * connectivity with and without CPU	1	No.			
11	Vacuum pump * Maximum power 80 watts * maximum vacuum- 670 mm of Hg * maximum flow rate- 34 lit/ min * rotation- 1450 RPM * HP- 1/6 HP * noise level- 52 dB	1	No.			
12	Flame Photometer * Microprocessor Flame Photometer (Graphical Display & Inbuilt Printer) having provision for Four Element measurement in a single aspiration (Na, K, Li, Ca and Ba) * Provision for Calibration curve fit routines first order and second order * Data displayed should be in concentration units i.e. ppm & meq/litre * The unit should have provision for automatic filter selection; auto calibration, auto Gas Cut off (in case of power failure feature) * Printer attachment, PC connecting compatibility, Sample data storage (at least 300 results) * The unit would have alphanumeric key board for easy data entry, Graphical LCD for easy to read, Curve calibration using at least up to 5 standards multiple calibration curve saving facility * The unit should be supplied with Stainless steel burner with Sodium & Potassium Filter, air Compressor, LPG cylinder with valve,	1	No.			



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	wire-knitted gas rubber tube, NIST traceable Sodium & Potassium standard (1000 mg/L strength) each of 125 ml pack, 12 nos. certified volumetric Flask- class A of 100ml capacity, 3 nos. 1ml & 3 nos. 10 ml certified graduated Mohr's pipette of Class A made of borosilicate glass.					
13	UV Laminar Air Flow chamber * Working area 91.44cm x 60.96cm x 60.96 cm * blower fitted with HP motors * pre-filters made of high grade nylon Net fixed in stainless steel frame for first Stage air purification, through blower system * closed inner chamber fitted with HEPA having very accurate performance rate of air filtration, rating 99.99% resulting in ceasing all air borne molecule of particles up to 0.3 micron in working Area of Laminar Bench	1	No.			
14	Filtration assembly * With a Vacuum pump * complete with a glass filter holder 47 mm * with funnel, fitted base, cap & clamp	1	No.			
15	Plate count and colony counter * Hand held * micro controller based * 6 digit [999999] LCD counter * built in buzzer, marker pen, and counters * memorizes last count * as per GMP specifications * hold and count correction facility	1	No.			
16	(a) Arsenic testing instrument - portable type * Digital meter based on colorimetry /densitometry * complete with tri filter arsenic trap * 100 reaction vessel * destruction filter holder * detection filter holder * hydrogen sulphide filter * reagents for 420 tests * visual comparison chart * forceps * gloves * dilution tubes * cuvette * brush * 9V battery * screwdrivers * instrument manual	1	No.			
17	(b) Arsenic testing accessories - for spectrophotometer * Reagent for Arsenic Analysis: package of 250 tests - Hydrochloric Acid analytical grade 500 ml X4, Zinc filling (3-5	1	No.			



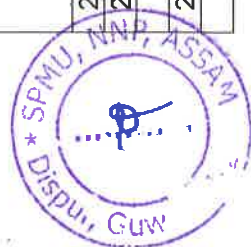
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	mm grain size) 500 gmX3, Potassium Iodide analytical grade 1X100 gm, Stannous Chloride analytical grade 1x100 gm, Morpholine 1X500ml, Lead acetate 1X500 gm, Chloroform HPLC/Spectroscopy grade 2X 1 lit, Silver diethyl dithiocarbamate ACS grade 5 mXl, glass wool 250 gmXl, Acetone analytical grade 500 mlXl * Arsine generator complete with 100 ml Erlenmeyer flask with standard joint, glass wool adaptor with matching std joint, absorber tube with matching standard joint, 5 ml volumetric Flask- package of 12 sets- all made of Borosilicate glass * Volumetric Flask 100 ml - 3 numbers, Mohr's type graduated pipette 1ml, 5 ml, 10 ml, 25 ml- 6 nos. each * Glass dropper- 2 nos * Stainless steel forceps- 1 no.					
18	Dissolved Oxygen Meter * Waterproof Hand-held Meters for the determination of Dissolved oxygen on site. The meter should be of Rugged, water resistant (IP 67) & to be designed for field use. Should have PC interface (USB / serial or analogue) & backlit LCD display. Technical specifications: * Measurement: Oxygen partial pressure, Oxygen Concentration, Oxygen Saturation, Temperature measurement, Automatic absolute air pressure measurement Should have Auto Hold Function, Alarm Function, Data Logger facility & with required Software, Easy calibration against oxygen in air, Salinity correction & shall have Self-polarising galvanic oxygen probe which should allow instant measurement after system be switched on. * Should have the features for Low battery and battery change indicator, auto off function, Sensor evaluation after calibration in the display & should have Shock-absorbing rubber protective armouring. O2 concentration 0.0 ... 70.0 mg/l	1	No.			



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	* Accuracy 02 concentration 0 ... 25 mg/l \pm 1.5 % \pm 0.2 mg/l/ 25 ... 70 mg/l \pm 2.5 % \pm 0.3 mg/l					
19	Specific Ion meter - for Fluoride, Chloride and Nitrate etc * Microprocessor based pH/ISE meter with large, backlit graphic LCD display, Informative display should show H/mV/RmV/ISE results and temperature along with electrode status, time, date, sample ID, user ID and calibration points * Tech specs for Ion measurement: Range: 0 to 19999 * Resolution: Up to 3 significant digits * Relative Accuracy: \pm 0.2 mV or \pm 0.05 % of reading whichever is greater * Units: ppm, M, mg/L, %, ppb, none * Calibration Points: Up to 5 * Calibration Editing: possible * Calibration Features: Timed end point, linear point to point, non-linear selectable auto-blank, low concentration range stability The unit shall be supplied with pH electrode, ATC probe, stainless steel probe, Star stirrer probe, Electrode arm with holder & Universal power adapter. The unit shall be supplied with Fluoride & Nitrate Ion selective electrode with electrode filling solution, TISAB-III for Fluoride, total ionic strength buffer solution for nitrate electrode, NIST traceable Standard solution for 1000 mg/L of Fluoride & Nitrate - 500 ml of each type, variable volume micropipette 1-5 ml with micro-tip (100 nos.) - 1 set & any other consumables required for Fluoride & Nitrate analysis.	1	No.			
20	Auto Burette (100 ml capacity, Automatic Zero, Accuracy as per Class A IS 1997: 2008 / ISO 385: 2005, With Reservoir, Rubber Bellow, PTFE Stopcock With Certificate)					
21	Auto-Pipette * Single channel Variable Volume automatic pipette * air-displacement type * Conformity * Certified with Individual Work	1	No.			



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	Certificate * Range: 500 - 5000 µl * Division: 10 µl * Accuracy R \pm %; 0.8					Bidder's offered Delivery date [to be provided by the bidder]
22	Thermometer * Range -20°C to 250°C * displays both in Fahrenheit & Centigrade scale/ inter switchable * accuracy – $\pm 0.2^{\circ}\text{C}$ * resolution- 0.1° * water resistant	1	No.			
23	Single Stage distillation apparatus * Output - 5 litres * auto cut * metallic stand * complete with other accessories * 230 volts	1	No.			
24	Quartz Distillation apparatus Dist. Water Output Cap.(Approx) – 5 Ltr/Hr, 230-250 Volts Single phase 4.4kw, Coiling Water consumption – 60 Ltr/Hr, Pyrogen free, PH 6-7, Conductivity –S/cm-<3 x 10-6, Distillate Temperature 65-750C, with Distillation Apparatus Power Supply (DAPS), Quartz boiler, Borosilicate Condenser and Quartz Condenser, Distillation Unit, Single Stage, All Quartz (Boiler & Condenser), with Built-in Quartz Heater, Vertical Panel Mounted to be complete with low water level cut-off device, Conductivity of distilled water should be around 2 us/cm or less.	1	No.			
25	Kjeldal distillation apparatus * unit of 6 test mantle type	1	No.			
26	Pressure Pump * Maximum pressure- 80 psi * rotation- 1400 rpm * Motor capacity- 1/6 HP * maximum power- 125 Watt * maximum current- 0.6 Ampere	1	No.			
27	Membrane filtration	1	No.			
28	Deep Freezer * -20°C * horizontal	1	No.			
29	Micropipette * variable volume of 0.5 µl to 10µl	1	No.			



Lot 6: Project District - Kamrup						
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30	Centrifuge machine with rotors * Microprocessor Based * Maximum Speed 5200 rpm * Square MS body duly powder coated * Double walled light weight ABS Lid. * Fitted with Micro Processor based 2 lines 16 characters LCD panel for 0-59 minute Count-down timer * The unit should be supplied with rotor head of 8X15 ml swing out head & 16 nos * Centrifuge tube	1	No.			
31	H2S Vials for Bacteriological testing * 100 vials/GP for each of the 15 GPs	1300	No.			
32	Conical Flasks * Flat bottom support * Conical body * Cylindrical neck * Graduated * complies with IS 915, ISO 1042 for volumetric flasks 100 ml capacity 150 ml capacity 250 ml capacity 500 ml capacity 1000 ml capacity					
33	Beakers * Flat bottom * cylindrical shape * small spout for clean and precise pouring * graduated to indicate the exact content 100 ml capacity 250 ml capacity 500 ml capacity 1000ml capacity 2000ml capacity	16 16 30 16 6	No. No. No. No. No.			
34	Ordinary Pipette * Large bulb with a long narrow portion above with a single graduation mark * Calibrated for a single volume * accurate measurement and decanting of liquid * each pipette coded with unique number	16 16 16 8 4	No. No. No. No. No.			



Lot 6: Project District - Kamrup						
Line Item No.	Description of Goods	Quantity	Physical unit	Final (Project Site) Destination as specified in BDS	Delivery (as per Incoterms) Date	
					Earliest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
	5 ml capacity	8	No.			
	10 ml capacity	12	No.			
	20 ml capacity	8	No.			
	25 ml capacity	8	No.			
	50 ml capacity	4	No.			
35	Graduated Pipette					
	* Long tube with a series of graduations to indicate different calibrated volumes for delivery from zero mark to the last graduation marks					
	1 ml capacity	4	No.			
	5 ml capacity	6	No.			
	10 ml capacity	8	No.			
	20 ml capacity	4	No.			
36	Ordinary Burette					
	* Straight tube with a graduation scale & a stop cock with one dispenser tube * No after drainage period * complies with ISO 385					
	25 ml capacity	8	No.			
	50 ml capacity	8	No.			
	100 ml capacity	1	No.			
37	Automatic Burette					
	* with automatic zero facility * mounted on a glass reservoir bottle, glass stop cock * rubber bellows * enamel graduations					
	50 ml capacity	1	No.			
38	Desiccators					
	* Normal Desiccators * size 160 mm * for use with Disposable or Reusable Desiccant * complies with IS 6128 : specification for desiccators	4	No.			
39	Reagent Bottles					



Lot 6: Project District - Kamrup						
Line Item No.	Description of Goods	Quantity	Physical unit	Final (Project Site) Destination as specified in BDS	Delivery (as per Incoterms) Date (Bid Security in INR34,000.00)	
					Earliest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
	* plain narrow mouth * no-drip pour lip * solid glass stopper to fit securely * autoclavable & sterilizable * with clear graduations					
	100 ml capacity	20	No.			
	250 ml capacity	35	No.			
	500 ml capacity	24	No.			
	1000ml capacity	10	No.			
	2000ml capacity	6	No.			
40	Sample Bottles					
	* Of food grade plastic * large labelling field * complete with screw cap and pouring ring					
	250 ml capacity	35	No.			
	500 ml capacity	35	No.			
	1000ml capacity	15	No.			
	2000ml capacity	8	No.			
41	Test Tubes					
	* without rim * flat bottom - Approx O.D. x Length in mm - 12x75	1	No.			
	Packet of 100					
42	Durham tubes					
	* Neutral glass * round bottom * autoclavable * very clear & transparent * straight rim	300	No.			
43	Round bottom flasks					
	* Round bottom support					
	250 ml capacity	8	No.			
44	Measuring cylinders					
	* graduated * with pour spouts to facilitate pouring without any drips * prominent graduations * broad base for stability					
	10 ml	6	No.			
	50 ml	6	No.			
	100 ml	6	No.			



Lot 6: Project District - Kamrup						
Line Item No.	Description of Goods	Quantity	Physical unit	Final (Project Site) Destination as specified in BDS	Delivery (as per Incoterms) Date (Bid Security in INR34,000.00)	Bidder's offered Delivery date (to be provided by the bidder)
	250 ml	6	No.		Earliest Delivery Date	
	500 ml	6	No.			
	1000ml	6	No.			
	2000ml	3	No.			
45	Measuring flasks					
	* with inter changeable solid glass stoppers * each flask engraved with individual serial number					
	5 ml	5	No.			
	10 ml	10	No.			
	25 ml	10	No.			
	50 ml	10	No.			
	100 ml	10	No.			
	250 ml	10	No.			
	500 ml	10	No.			
	1000 ml	5	No.			
46	Funnels					
	75 mm diameter	5	No.			
	100 mm diameter	5	No.			
	125 mm diameter	2	No.			
47	Porcelain dish					
	Medium size	10	No.			
	Large size	6	No.			
48	Crucibles	8	No.			
49	Wash bottles	6	No.			
50	Standard joints					
	Grouted	24	No.			
	Bends	12	No.			
51	Glass rods					
	(Packet of 50)	1	No.			
52	Petri Dishes					
	* Diameter – 75 mm	100	No.			



Lot 6: Project District - Kamrup						
Line Item No.	Description of Goods	Quantity	Physical unit	Final (Project Site) Destination as specified in BDS	Delivery (as per Incoterms) Date (Bid Security in INR34,000.00)	
					Earliest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
53	Nessler Cylinders					
	* Graduated * maximum clarity					
	50 ml capacity	20	No.			
	100 ml capacity	20	No.			
54	Thermometers					
	* Digital type * display both in Fahrenheit & Centigrade scale					
	* accuracy up to ± 0.2 to ± 0.5 °C * resolution – 0.1°C * usage of Min/ Max/ Hold button *					
	100°C	2	No.			
	200°C	2	No.			
	500°C	1	No.			
55	Separating Flask					
	* Capacity - ml * Stopper at top to fit tightly * Stop cock at bottom to be well sealed	10	No.			
56	Stopper Bottles for dissolved Oxygen					
	* Each bottle and its stopper marked with a unique matching identification number	2	No.			



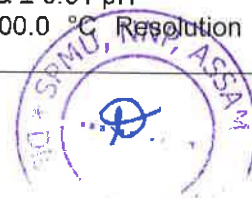
2. List of Related Services [ITB Clause 14.8(b)] and Completion Schedule

Description of Service	Quantity	Physical Unit	Place where Services shall be performed	Final Completion Date(s) of Services
Lot 1: Installation, Demonstration and Training	1	Job	Jorhat	60 days from the date of issue of Notice to Proceed
Lot 2: Installation, Demonstration and Training	1	Job	Morigaon	-do-
Lot 3: Installation, Demonstration and Training	1	Job	Bongaigaon	-do-
Lot 4: Installation, Demonstration and Training	1	Job	Hailakandi	-do-
Lot 5: Installation, Demonstration and Training	1	Job	Sivasagar	-do-
Lot 6: Installation, Demonstration and Training	1	Job	Kamrup	-do-



The Goods and Related Services shall comply with following Technical Specifications and Standards:

Item No	Name of Goods or Related Service	Technical Specifications and Standards
1	Digital pH meter	<ul style="list-style-type: none"> * Conforms to National Accreditation Board for Testing and Calibration Laboratories (NABL) & National Institute of Standards & Technology (NIST) guidelines * automatic electrode recognition * built in GLP function * graphic LCD display of pH, ORP readings, temperature, electrode status, calibration points, battery life, date and time * hard & waterproof casing * Help Menu * pH Range: 0-14 pH * resolution: 0.01pH * accuracy: ± 0.01 pH * calibration point: Up to 5 * Buffer sets * auto temperature compensation * windows compatible software * USB cable for PC connection * rechargeable batteries & battery charger
(a)	Microprocessor based (Research grade instrument) pH meter	<p>Up to 6-point calibration with auto-buffer recognition</p> <ul style="list-style-type: none"> * quick & easy electrode diagnosis with multiple pH slopes and offset display * non-volatile memory holds up to 500 data points - time and date-stamped for GLP compliance * calibrate with up to 5 custom pH buffers - use any pH values that are >1.0 pH unit apart * Cal-due alarm - no more out-dated calibrations * auto-logging function for convenient continuous monitoring * provision for password protection for setup and calibration should be available * output data to printer or PC * detachable electrode holder <p>Technical Specifications:</p> <ul style="list-style-type: none"> * pH Range-2.000 to 20.000 pH * Resolution-0.1 / 0.01 / 0.001 pH * Accuracy-± 0.002 pH + 1 LSD * Cal. Points-Up to 6 preset or 5 customs * Buffer Sets-USA, NIST, DIN, User 1 * ORP Range-± 2000.0 mV, Accuracy-± 0.2 mV * Rel. mV Range-± 2000.0 mV, Temp Range (Meter) 0.0 to 100.0 °C * Compensation Auto/Manual <p>The unit should be supplied with (i) pH Meter With refillable pH Electrode, (ii) Temperature Probe & pH Electrode, (iii) Refill Solution, (iv) electrode stand with swivel arm, (v) RS232 cable, (vi) software for data transfer to PC, (vii) operating manual, (viii) NIST Traceable pH buffer pH 2.00, (ix) 4.01, 7.00 & 10.01- 500 ml each pack.</p>
(b)	Portable pH meter	<ul style="list-style-type: none"> * Multi-Point Calibration (up to 5 points) with Auto-Buffer Recognition - choice of USA * NIST or pure water buffer standards with ± 0.01 pH accuracy * Automatic Temperature Compensation (ATC) for the highest accuracy under * fluctuating temperatures * Hold Function momentarily freezes reading for easy viewing and recording * Auto-Power Off saves battery power after non-use * Self-Diagnostic with message codes for easy troubleshooting * Large Custom LCD provides optimum viewing even at a distance * Protective Rubber Boot shields meter from accidental knocks and features a sturdy built-in stand for easy bench-top operation * Rugged Carrying Case (Optional) provides handy on-site meter calibration and measurement. <p>Technical specification:</p> <ul style="list-style-type: none"> * pH Range - 0.00 to 14.00 pH * Resolution & Accuracy- 0.01 pH & ± 0.01 pH * Temperature Range - 0 to 100.0 °C * Resolution & Accuracy- 0.1 °C & ± 0.5 °C



Item No	Name of Goods or Related Service	Technical Specifications and Standards
		<ul style="list-style-type: none"> * mV Range -1000 to + 1000 mV * Resolution & Accuracy - 1 mV & ± 1 mV * Temperature Compensation-Automatic / Manual (0 to 100 °C) * No. of Calibration Points - Up to 5 points <p>The unit should be supplied with (i) Microprocessor based pH Meter with Single Junction pH Electrode, (ii) ATC Probe & pH Carrying Kit Set (Includes at least 1 x pH 4.01, (iii) pH 7.00 Buffer Solutions, (iv) Storage Solution & 1 x Deionised (Rinse) Water (60 ml Each), (v) 480 ml each of colour coded standard buffer solution pH 4.01 (red coloured), (vi) pH 7.00 (Yellow coloured) & pH 10.01 (Blue coloured), (vii) operating manual, carrying case.</p>
2	Digital TDS meter	<ul style="list-style-type: none"> * Conforms to NABL & NIST guidelines * displays Conductivity, TDS and Temperature * automatic electrode recognition * built in GLP function * up to 1000 samples data set storage * range - 1 μS/cm to 200 mS/cm * windows compatible software * USB cable for PC connection
(a)	Lab based Digital TDS meter	<ul style="list-style-type: none"> * Large screen that displays Conductivity or TDS readings with Temperature in °C * Ready indicator to know when readings are stable * Selectable cell constant * Auto-ranging across Conductivity and TDS ranges * Up to 5-point push button calibration * Non-volatile memory holds up to 100 data points * Should have Integral electrode holder <p>Technical specification:</p> <ul style="list-style-type: none"> * Conductivity Range-μS to 200.0 mS * Resolution-0.01 / 0.1 / 1 μS; 0.01 / 0.1 mS * Accuracy- ± 1 % full scale * Cal. Points-Up to 5 Cell Constant-0.1, 1.0, 10.0 (selectable) * TDS Range-to 100.0 ppt Resolution-0.01 / 0.1 / 1 ppm; 0.01 / 0.1 ppt * Accuracy-± 1 % full scale * Cal. Points-Manual (5 points) * Temperature Range (Meter)-0.0 to 100.0 °C * Resolution-0.1 °C * Accuracy-± 0.5 °C * Compensation Type & Range-Automatic with supplied cell or manual 0.0 to 100 °C <p>The Instrument should be supplied with (i) Meter with Conductivity/ATC Probe, (ii) Integral Electrode Holder, (iii) Power Adapter, (iv) Electrode Holder, (v) Operating Manual 480 ml pack of Calibration standard of 1413 μS/cm.</p>
(b)	Portable Digital TDS meter	<ul style="list-style-type: none"> * Multi-Point Push-button Calibration (up to 5 points) with ± 1% full scale accuracy * Automatic or Manual Calibration - for quick, easy calibration; use automatic mode * with pre-set calibration points at most popular values or manually set values in the manual mode for more flexibility * Auto-Ranging for Conductivity/TDS measurements for fast response and best resolution over wide measurement range * Adjustable TDS Factor for more accurate measurement (for TDS 6 model only) * Automatic Temperature Compensation (ATC) for the optimum accuracy under fluctuating temperatures * Hold Function momentarily freezes reading for easy viewing * Auto-Power Off saves battery power after non-use * Self-Diagnostic with message codes for easy troubleshooting * Large Custom LCD provides optimum viewing even at a distance * Electrode with Built-in ATC designed for minimal air bubble entrapment during measurement * Protective Rubber Boot



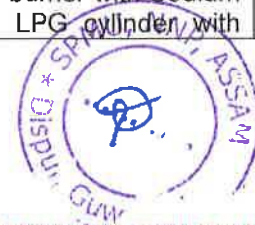
Item No	Name of Goods or Related Service	Technical Specifications and Standards
		shields meter from drops and features a sturdy built-in stand for easy bench-top operation.
		<p>Technical specifications:</p> <ul style="list-style-type: none"> * TDS Range-0.00 - 9.99 ppm / 10.0 - 99.9 ppm/ 100 - 999 ppm / 1.00 - 9.99 ppt / 10.0 - 99.9 ppt * Resolution-0.05 % full scale Accuracy-± 1 % of full scale ± 1 LSD * TDS Factor-0.30 to 1.00 * Temperature Range-0.0 to 80.0 °C * Resolution-0.1 °C * Accuracy-± 0.5 °C * Compensation Automatic/Manual (0 to 80 °C) * Normalization 20.0 or 25.0 °C Operating Temperature-5 to 45 °C * Calibration Points-4 (1 per range) auto, 5(1 per range) manual Temperature Coefficient-0.0 - 10.0 % * CellConstant-0.1, 1.0, 10.0 Auto-Off-20 min after last key pressed * Input-BNC, 2.5 mm phono socket Power-4 x 1.5 V 'AAA' alkaline batteries to be included <p>The meter should be supplied with (i) Basic meter with conductivity electrode with cell constant 1.0, (ii) TDS calibration solutions (50 ppm, 300 ppm, 3000 ppm), (iii) DI rinse water (60 mL each), (iv) Grip-Clip, (v) batteries in hard carrying case, (vi) operating manual & 480 ml of 300 ppm TDS calibration solution.</p>
3	Nephelometer (Turbidimeter) –	<ul style="list-style-type: none"> * Microprocessor based Digital Turbidity meter to allow fast, precise on site or laboratory measurements * measure scattered light at 90 ° angle as stipulated in ISO 7027. <p>Technical specification:</p> <ul style="list-style-type: none"> * Display-backlit LCD Optics temperature-compensated LED ($\lambda = 860$ nm) and photo-sensor amplifier in water proof sample chamber, infrared light * Keypad-Polycarbonate membrane, splash proof * Power supply-by battery, Real time clock and date * Automatic switch-off during idle time, Data Storage-Internal memory for at least 15 data sets * Range (Auto-range): 0.01-1100 NTU * Resolution-0-99.99 NTU = 0.01/ 100.0-999.9 NTU = 0.1/ 1000-1100 NTU = 1.0 * Accuracy-± 2.5 % of reading or ± 0.01 NTU (0 - 500 NTU) ± 5 % (500 - 1100 NTU) * Ambient conditions-Temperature: 5 - 40 °C rel. humidity: 30 - 90%
4	Refrigerator	* Capacity-180 L * frost free * 5 star rating * single door * freezer type - top freezer * in built inverter
5	Refrigerator	* Capacity- 300 L * frost free * 5 star rating * double door * freezer type - top freezer * in built inverter
6	Water still	* Distillation Unit made of Stainless steel * capacity 5 litre/ hour * wall mounting model – equipped with brackets for wall mounting * to work on 220- 230 volts AC supply
7	Voltage stabilizer	* Capacity- 3 KVA * servo stabilizer * 5 star rating
8	UPS/ Inverter	* capacity- 3 KVA * 5 star rating * 6 hrs backup * with battery
9	Hot plate	<ul style="list-style-type: none"> * Body to be fabricated out of thick mild steel sheet, duly finished in epoxy powder coated * The Hot Plate top to be made of Stainless steel thick sheet & smoothed duly finished should be firmly mounted on the body * Heavy duty heating elements should be securely laid under the plate to operate on 220/230V AC supply * Temperature in



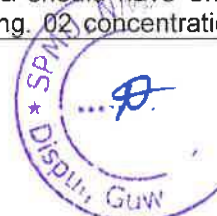
Item No	Name of Goods or Related Service	Technical Specifications and Standards
		<p>controlled by energy regulators fitted with an indicator lamp for the mains * To be supplied with main cord and plug.</p> <p>Technical Specifications:</p> <ul style="list-style-type: none"> * Top plate size: 30 x 45cm * Load: 2 KW
10	Laboratory Heating mantel	<ul style="list-style-type: none"> * Body has to be made of one-piece aluminium and is lagged with special mineral wool * The panel should be provided with on-off switch, energy control knob and pilot lamp * It should be provided with joint-less hand knitted heating nets of glass yarn capable of withstanding high temperature up to 400°C. <p>Technical Specifications:</p> <ul style="list-style-type: none"> * To be supplied complete with cord & plug to work on 220/230V AC supply a) Capacity: 500 ml b) Capacity: 1000 ml
11	Water Bath - Thermostatic	<ul style="list-style-type: none"> * The unit should be of double walled construction, argon Welded, and inner & outer wall made of MS sheet * SS lids having 75mm dia. holes with removable concentric rings * The gap between outer and inner walls should be filled with special grade glass wool insulation * Temperature control from +5°C above ambient to 99°C * The unit would be fitted with Capillary type Thermostat with arbitrary scale dial for temperature control from +5° C above ambient to 99°C ± 1°C (at 50°C).
12	Hot air oven - Standard make	<ul style="list-style-type: none"> * The unit should be of double walled with outer body made of Mild Steel Sheet treated for degreasing & rust proofing duly powder coated and inner chamber is to be made of Stainless Steel Sheet (304 Grade) with adjustable Stainless-Steel Wire Mesh shelves * Space between inner chamber and outer wall should be filled with high grade mineral wool as insulation * The Double Walled Door should have synthetic rubber / fibre gasket. Unit should have ventilation slides on two sides to control inner air/ vapour circulation * To be fitted with beaded heating elements placed in ribs, at bottom and sides for uniform heat distribution. To work on 220/230 volts AC supply. <p>Technical Specifications</p> <ul style="list-style-type: none"> * Temperature control-By capillary type thermostat with arbitrary scale dial for temperature control from +5° C ambient to 250°C ± 2°C at 100°C and with in-built L-type capillary thermometer & energy regulator to reduce temperature fluctuation in higher temperature. * Working chamber size: 450x450x600 mm (2 trays)-approximately 120 lit
13	Bacteriological Incubator	<ul style="list-style-type: none"> * The unit should be double walled with outer body to be made of MS sheet treated for degreasing & rust proofing duly powder coated and inner chamber to be made of Stainless Steel (304 Grade) sheet * To be provided with adjustable Stainless Steel Wire Mesh / perforated shelves * Space between inner chamber and outer wall should be filled with high grade mineral wool for minimal heat loss * The Double Walled Door to be fitted with glass window to facilitate viewing inside chamber without disturbing the inner temperature and should be of synthetic rubber/fibre gasket. * Unit should have ventilation slides on two sides to control inner air/ vapour circulation * To be fitted with beaded heating elements placed in ribs, at bottom and sides for uniform heat distribution. Unit has to be fitted with two lamps and ON / OFF switch * To work on 220/230 Volts AC supply. <p>Technical Specifications:</p>



Item No	Name of Goods or Related Service	Technical Specifications and Standards
		<p>* Temperature control-By Digital Temperature Indicator-cum-Controller (with display for Set Value and Present Value) from +5° C ambient to 70°C, $\pm 0.5^{\circ}\text{C}$ at 50°C. To be fitted with Air Circulating Fan to maintain uniform temperature throughout the working chamber.</p> <p>* Working chamber size: 459x450x600 mm (2 trays)-approximately 120 lit</p>
14	Autoclave	<p>* The outer chamber should be made of heavy gauge Stainless Steel Sheet duly polished * The inner chamber should be made of thick 304 Grade Stainless Steel Sheet. Lid should be made of thick machined high grade Stainless Steel plate * The unit should have Radial Locking arrangement made of high grade Stainless Steel duly polished with paddle lifting mechanism * The unit has to be fitted with Spring Loaded Safety Valve, Pressure Gauge, Pressure Release Valve, water Level Indicator, Drain Valve, Automatic Pressure Control Switch, Automatic Low Water Cut-off Device & automatic interval timer * The unit should be hydraulically tested to withstand up to 40 psi pressure * All internal joints of the unit should be Argon arc welded ground and polished to give crevice free internals * Moulded joint-less Silicon Rubber Gasket has to be provided for leak proofing * The unit would be electrically heated by flange type/immersion type heaters. To be supplied with Control Box, fitted with Mains & Heating Indicators, ON / OFF Switch, Cord & Plug to work on 220/230V, 50Hz, AC supply * Working chamber size: 300 mm X 500 mm (approximately 35 lit).</p>
15	Magnetic stirrer	<p>* The body should be made of mild steel duly finished in epoxy powder coating and to be mounted with a stainless-steel top stirring has to be done by fractional horsepower motor, rotating magnetic field applied below the liquid container * The stirring would be accomplished by a PTFE encapsulated magnetic needle to be placed in the liquid to be stirred * The unit should be supplied with pilot lamp, plug cord and continuously variable speed regulator * Maximum speed 1400 RPM. The unit shall be workable on 220/230V AC single phase. To be supplied with TWO PTFE coated magnetic needle (dia X length): 8x15mm & 8x25mm one each Stirring Capacity: Approximately. 2 lit</p>
16	Microscope	<p>* Binocular * with LCD display * connectivity with and without CPU</p>
17	Vacuum pump	<p>* Maximum power 80 watts * maximum vacuum- 670 mm of Hg * maximum flow rate- 34 lit/ min * rotation- 1450 RPM * HP- 1/6 HP * noise level- 52 dB</p>
18	Flame Photometer	<p>* Microprocessor Flame Photometer (Graphical Display & Inbuilt Printer) having provision for Four Element measurement in a single aspiration (Na, K, Li, Ca and Ba) * Provision for Calibration curve fit routines first order and second order * Data displayed should be in concentration units i.e. ppm & meq/litre * The unit should have provision for automatic filter selection; auto calibration, auto Gas Cut off (in case of power failure feature) * Printer attachment, PC connecting compatibility, Sample data storage (at least 300 results) * The unit would have alphanumeric key board for easy data entry, Graphical LCD display for easy to read, Curve calibration using at least up to 5 standards multiple calibration curve saving facility * The unit should be supplied with Stainless steel burner with Sodium & Potassium Filter, air Compressor, LPG cylinder with</p>



Item No	Name of Goods or Related Service	Technical Specifications and Standards
		valve, wire-knitted gas rubber tube, NIST traceable Sodium & Potassium standard (1000 mg/L strength) each of 125 ml pack, 12 nos. certified volumetric Flask- class A of 100ml capacity, 3 nos. 1ml & 3 nos. 10 ml certified graduated Mohr's pipette of Class A made of borosilicate glass.
19	UV Laminar Air Flow chamber	* Working area 91.44cm x 60.96cm x 60.96 cm * blower fitted with HP motors * pre-filters made of high grade nylon Net fixed in stainless steel frame for first Stage air purification, through blower system * closed inner chamber fitted with HEPA having very accurate performance rate of air filtration, rating 99.99% resulting in ceasing all air borne molecule of particles up to 0.3 micron in working Area of Laminar Bench
20	Filtration assembly	* With a Vacuum pump * complete with a glass fitter holder 47 mm * with funnel, fitted base, cap & clamp
21	Plate count and colony counter	* Hand held * micro controller based * 6 digit [999999] LCD counter * built in buzzer, marker pen, and counters * memorizes last count * as per GMP specifications * hold and count correction facility
22	(a) Arsenic testing instrument - portable type	* Digital meter based on colorimetry /densitometry * complete with tri fitter arsenic trap * 100 reaction vessel * destruction fitter holder * detection fitter holder * hydrogen sulphide fitter * reagents for 420 tests * visual comparison chart * forceps * gloves * dilution tubes * cuvette * brush * 9V battery * screwdrivers * instrument manual
23	(b) Arsenic testing accessories - for spectrophotometer	* Reagent for Arsenic Analysis: package of 250 tests - Hydrochloric Acid analytical grade 500 ml X4, Zinc filling (3-5 mm grain size) 500 gmX3, Potassium Iodide analytical grade 1X100 gm, Stannous Chloride analytical grade 1x100 gm, Morpholine IX500ml, Lead acetate 1X500 gm, Chloroform HPLC/Spectroscopy grade 2X 1 lit, Silver diethyl dithiocarbamate ACS grade 5 mXI, glass wool 250 gmXI, Acetone analytical grade 500 mlXI * Arsine generator complete with 100 ml Erlenmeyer flask with standard joint, glass wool adaptor with matching std joint, absorber tube with matching standard joint, 5 ml volumetric Flask- package of 12 sets- all made of Borosilicate glass * Volumetric Flask 100 ml - 3 numbers, Mohr's type graduated pipette 1ml, 5 ml, 10 ml, 25 ml- 6 nos. each * Glass dropper- 2 nos * Stainless steel forceps- 1 no.
24	Dissolved Oxygen Meter	* Waterproof Hand-held Meters for the determination of Dissolved oxygen on site. The meter should be of Rugged, water resistant (IP 67) & to be designed for field use. Should have PC interface (USB / serial or analogue) & backlit LCD display. Technical specifications: * Measurement: Oxygen partial pressure, Oxygen Concentration, Oxygen Saturation, Temperature measurement, Automatic absolute air pressure measurement Should have Auto Hold Function, Alarm Function, Data Logger facility & with required Software, Easy calibration against oxygen in air, Salinity correction & shall have Self-polarising galvanic oxygen probe which should allow instant measurement after system be switched on. * Should have the features for Low battery and battery change indicator, auto off function, Sensor evaluation after calibration in the display & should have Shock-absorbing rubber protective armouring. O2 concentration 0.0 ... 70.0



Item No	Name of Goods or Related Service	Technical Specifications and Standards
		mg/l * Accuracy 02 concentration 0 ... 25 mg/l $\pm 1.5 \% \pm 0.2$ mg/l/ 25 ... 70 mg/l $\pm 2.5 \% \pm 0.3$ mg/l
25	Cool box with icepacks	* Material: PC thermoplastic / Non toxic gel well * dimension: 134mm x 92 mm
26	Specific Ion meter - for Fluoride, Chloride and Nitrate etc	* Microprocessor based pH/ISE meter with large, backlit graphic LCD display, Informative display should show H/mV/RmV/ISE results and temperature along with electrode status, time, date, sample ID, user ID and calibration points * Tech specs for Ion measurement: Range: 0 to 19999 * Resolution: Up to 3 significant digits * Relative Accuracy: ± 0.2 mV or ± 0.05 % of reading whichever is greater * Units: ppm, M, mg/L, %, ppb, none * Calibration Points: Up to 5 * Calibration Editing: possible * Calibration Features: Timed end point, linear point to point, non-linear selectable auto-blank, low concentration range stability The unit shall be supplied with pH electrode, ATC probe, stainless steel probe, Star stirrer probe, Electrode arm with holder & Universal power adapter. The unit shall be supplied with Fluoride & Nitrate ion selective electrode with electrode filling solution, TISAB-III for Fluoride, total ionic strength buffer solution for nitrate electrode, NIST traceable Standard solution for 1000 mg/L of Fluoride & Nitrate - 500 ml of each type, variable volume micropipette 1-5 ml with micro-tip (100 nos.) - 1 set & any other consumables required for Fluoride & Nitrate analysis.
27	Fume cup board	* Work table size 91.44cm x 60.96cm x 60.96 cm * exhaust ducting * table material: granite * outer mild steel body
28	Auto Burette	100 ml capacity, Automatic Zero, Accuracy as per Class A IS 1997: 2008 / ISO 385: 2005, With Reservoir, Rubber Bellow, PTFE Stopcock With Certificate, Heat resistant low expansion borosilicate glass
29	Auto-Pipette	* Single channel Variable Volume automatic pipette * air-displacement type * Conformity * Certified with Individual Work Certificate * Range: 500 - 5000 μ l * Division: 10 μ l * Accuracy $R \leq \pm \%$: 0.8
30	Thermometer	* Range -20°C to 250°C * displays both in Fahrenheit & Centigrade scale/ inter switchable * accuracy - $\pm 0.2^{\circ}\text{C}$ * resolution- 0.1° * water resistant
31	Single Stage distillation apparatus	* Output - 5 litres * auto cut * metallic stand * complete with other accessories * 230 volts
32	Quartz Distillation apparatus	Dist. Water Output Cap.(Approx) - 5 Ltr/Hr, 230-250 Volts Single phase 4.4kw, Cooling Water consumption - 60 Ltr/Hr, Pyrogen free, PH 6-7, Conductivity -S/cm- $<3 \times 10^{-6}$, Distillate Temperature 65-75 $^{\circ}\text{C}$, with Distillation Apparatus Power Supply (DAPS), Quartz boiler, Borosilicate Condenser and Quartz Condenser, Distillation Unit, Single Stage, All Quartz (Boiler & Condenser), with Built-in Quartz Heater, Vertical Panel Mounted to be complete with low water level cut-off device, Conductivity of distilled water should be around 2 $\mu\text{S/cm}$ or less.
33	Kjeldal distillation apparatus	* unit of 6 test mantle type
34	Pressure Pump	* Maximum pressure- 80 psi * rotation- 1400 rpm * Motor capacity- 1/6 HP * maximum power- 125 Watt * maximum current- 0.6 Ampere
35	Membrane filtration	Standard specifications
36	Deep Freezer	* -20°C * horizontal
37	Micropipette	* variable volume of 0.5 μ l to 10 μ l



Item No	Name of Goods or Related Service	Technical Specifications and Standards
38	Centrifuge machine with rotors	* Microprocessor Based * Maximum Speed 5200 rpm * Square MS body duly powder coated * Double walled light weight ABS Lid. * Fitted with Micro Processor based 2 lines 16 characters LCD panel for 0-59 minute Count-down timer * The unit should be supplied with rotor head of 8X15 ml swing out head & 16 nos * Centrifuge tube
39	Portable Chemical Field Test Kit	* Capable of testing 30 samples/ GPs
40	H2S Vials for Bacteriological testing	* 100 vials/GP for each of the 15 GPs
41	Conical Flasks	* Flat bottom support * Conical body * Cylindrical neck * Graduated * complies with IS 915, ISO 1042 for volumetric flasks
42	Beakers	* Flat bottom * cylindrical shape * small spout for clean and precise pouring * graduated to indicate the exact content
43	Ordinary Pipette	* Large bulb with a long narrow portion above with a single graduation mark * Calibrated for a single volume * accurate measurement and decanting of liquid * each pipette coded with unique number
44	Graduated Pipette	* Long tube with a series of graduations to indicate different calibrated volumes for delivery from zero mark to the last graduation marks
45	Ordinary Burette	* Straight tube with a graduation scale & a stop cock with one dispenser tube * No after drainage period * complies with ISO 385
46	Automatic Burette	* with automatic zero facility * mounted on a glass reservoir bottle, glass stop cock * rubber bellows * enamel graduations
47	Desiccators	* Normal Desiccators * size 160 mm * for use with Disposable or Reusable Desiccant * complies with IS 6128 : specification for desiccators
48	Reagent Bottles	* plain narrow mouth * no-drip pour lip * solid glass stopper to fit securely * autoclavable & sterilizable * with clear graduations
49	Sample Bottles	* Of food grade plastic * large labelling field * complete with screw cap and pouring ring
50	Test Tubes	* without rim * flat bottom- Approx O.D. x Length in mm - 12x75
51	Durham tubes	* Neutral glass * round bottom * autoclavable * very clear & transparent * straight rim
52	Round bottom flasks	* Round bottom support
53	Measuring cylinders	* graduated * with pour spouts to facilitate pouring without any drips * prominent graduations * broad base for stability
54	Measuring flasks	* with inter changeable solid glass stoppers * each flask engraved with individual serial number
55	Funnels	Standard specifications
56	Porcelain dish	Standard specifications
57	Crucibles	Standard specifications
58	Wash bottles	Standard specifications
59	Standard joints	Standard specifications
60	Glass rods	Standard specifications
61	Petri Dishes	Standard specifications
62	Nessler Cylinders	* Graduated * maximum clarity
63	Thermometers	* Digital type * display both in Fahrenheit & Centigrade scale * accuracy up to ± 0.2 to ± 0.5 °C * resolution - 0.1 °C * usage of Min/ Max/ Hold button *
64	Separating Flask	* Capacity - Standard ml * Stopper at top to fit tightly * Stop cock at bottom to be well sealed
65	Stopper Bottles for dissolved Oxygen	* Each bottle and its stopper marked with a unique matching identification number



4. Drawings

These Bidding Documents includes no drawings.



5. INSPECTIONS AND TESTS

The following inspections and tests shall be performed:

As per Indian/International standards for the goods to be supplied.



6. PROFORMA OF CERTIFICATE FOR ISSUE BY THE PURCHASER AFTER SUCCESSFUL INSTALLATION AND STARTUP OF THE SUPPLIED GOODS

[This is to be attached for supply, erection, supervision of erection and startup contracts only]

No.

Date:

M/s.

Sub: Certificate of startup of the supplied Goods

1. This is to certify that the plant/s as detailed below has/have been received in good condition along with all the standard and special accessories (subject to remarks in Para No. 2) and a set of spares in accordance with the Contract/Specifications. The same has been installed and commissioned.

- (a) Contract No. _____ dated _____
- (b) Description of the plant _____
- (c) Plant Nos. _____
- (d) Quantity _____
- (e) Rail/Roadways _____ Receipt _____ No. _____
dated _____
- (f) Name of the consignee _____
- (g) Date of startup and proving test _____

2. Details of accessories/spares not yet supplied and recoveries to be made on that account.

<u>S. No.</u>	<u>Description</u>	<u>Amount to be recovered</u>
---------------	--------------------	-------------------------------

3. The proving test has been done to our entire satisfaction and operators have been trained to operate the plant.
4. The supplier has fulfilled his contractual obligations satisfactorily. *

or



The supplier has failed to fulfill his contractual obligations with regard to the following:

- (a)
 - (b)
 - (c)
 - (d)
5. The amount of recovery on account of non-supply of accessories and spares is given under Para No. 2.
6. The amount of recovery on account of failure of the supplier to meet his contractual obligations is as indicated in endorsement of the letter.

Signature _____

Name

Designation with Stamp

* Explanatory notes for filling up the certificates:

- (a) He has adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to Technical Specifications.
- (b) He has supervised the startup of the plant in time i.e., within the period specified in the contract from the date of intimation by the Purchaser in respect of the installation of the plant.
- (c) Training of personnel has been done by the supplier as specified in the contract
- (d) In the event of documents/drawings having not been supplied or installation and startup of the plant have been delayed on account of the supplier, the extent of delay should always be mentioned.



PART 3 – CONTRACT



SECTION VIII. GENERAL CONDITIONS OF CONTRACT

1. Definitions

The following words and expressions shall have the meanings hereby assigned to them:

- (a) "Bank" means the World Bank and refers to the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).
- (b) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- (c) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.
- (d) "Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
- (e) "Day" means calendar day.
- (f) "Completion" means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- (g) "GCC" means the General Conditions of Contract.
- (h) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- (i) "Purchaser's Country" is India.
- (j) "Purchaser" means the entity purchasing the Goods and Related Services, as specified in the SCC.
- (k) "Related Services" means the services incidental to the supply of the goods, such as insurance, installation, start-up, training and initial maintenance and other such obligations of the Supplier under the Contract.
- (l) "SCC" means the Special Conditions of Contract.
- (m) "Subcontractor" means any natural person, private or government entity, or a combination of the above, to whom any



part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.

- (n) "Supplier" means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
- (o) "The Project Site," where applicable, means the place named in the SCC.

2. Contract Documents

- 2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

3. Corrupt & Fraudulent Practices

- 3.1 The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Appendix to the GCC.
- 3.2 The Purchaser requires the Supplier to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

4. Interpretation

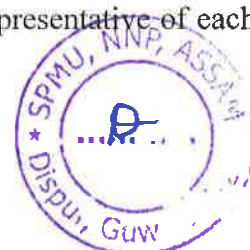
- 4.1 If the context so requires it, singular means plural and vice versa.
- 4.2 Incoterms.
 - (a) Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties there under shall be as prescribed by Incoterms.
 - (b) The terms EXW and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms specified in the SCC and published by the International Chamber of Commerce in Paris, France.

4.3 Entire Agreement

The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.

4.4 Amendment

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.



4.5 Nonwaiver

- (a) Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- (b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

4.6 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

5. Language

- 5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be English. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in English language, in which case, for purposes of interpretation of the Contract, this translation shall govern.
- 5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.

6. Deleted**7. Eligibility**

- 7.1 The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.
- 7.2 All Goods and Related Services to be supplied under the Contract and financed by the Bank shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

8. Notices

- 8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the SCC.



The term "in writing" means communicated in written form with proof of receipt.

- 8.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

9. Governing Law

- 9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Union of India.

10. Settlement of Disputes

- 10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

- 10.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure **specified in the SCC.**

- 10.3 Notwithstanding any reference to arbitration herein,

- (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- (b) the Purchaser shall pay the Supplier any monies due the Supplier.

11. Inspections and Audit by the Bank

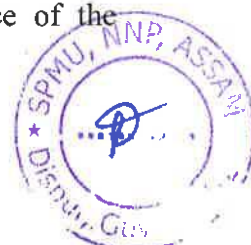
- 11.1 The Supplier shall keep, and shall make all reasonable efforts to cause its Subcontractors to keep, accurate and systematic accounts and records in respect of the Goods in such form and details as will clearly identify relevant time changes and costs

- 11.2 The Supplier shall permit, and shall cause its Subcontractors to permit, the Bank and/or persons appointed by the Bank to inspect the Supplier's offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Supplier's and its Subcontractors and consultants' attention is drawn to Clause 3 [Fraud and Corruption], which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under this Sub-Clause 11.1 constitute a prohibited practice subject to contract termination (as well as to



a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures)

- 12. Scope of Supply** 12.1 The Goods and Related Services to be supplied shall be as specified in the **Special Conditions of Contract**.
- 13. Delivery and Documents** 13.1 Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the SCC.
- 14. Supplier's Responsibilities** 14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.
- 15. Contract Price** 15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the SCC.
- 16. Terms of Payment** 16.1 The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the SCC.
- 16.2 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfillment of all other obligations stipulated in the Contract.
- 16.3 Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.
- 16.4 The payments shall be made in Indian Rupees to the Supplier under this Contract.
- 16.5 In the event that the Purchaser fails to pay the Supplier any payment by its due date or within the period set forth in the SCC, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate shown in the SCC, for the period of delay until payment has been made in full, whether before or after judgment or arbitration award.
- 17. Taxes and Duties** 17.1 The Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
- 18. Performance Security** 18.1 If required as specified in the SCC, the Supplier shall, within twenty-one (21) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the SCC.



- 18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 18.3 As specified in the SCC, the Performance Security shall be denominated in the Indian Rupees, and shall be in the format stipulated by the Purchaser in the SCC, or in another format acceptable to the Purchaser.
- 18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the SCC.

19. Copyright

- 19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

20. Confidential Information

- 20.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.
- 20.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.
- 20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:
- (a) the Purchaser or Supplier need to share with the Bank or other institutions participating in the financing of the Contract;
 - (b) now or hereafter enters the public domain through no fault of that party;



- (c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
- (d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.

20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

21. Subcontracting

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.

21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

22. Specifications and Standards

22.1 Technical Specifications and Drawings

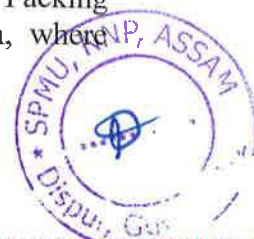
(a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VII, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin.

(b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.

(c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.

23. Packing and Documents

23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where



appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

- 23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Purchaser.

24. Insurance

- 24.1 Unless otherwise specified in the SCC, the Goods supplied under the Contract shall be fully insured—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC.

25. Transportation & Incidental Services

- 25.1 Unless otherwise specified in the SCC, responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.

- 25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, **specified in Schedule of Requirements and SCC**:

- (a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;
- (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
- (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- (e) training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods

- 25.3 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

26. Inspections and Tests

- 26.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the SCC.

- 26.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place in the Purchaser's Country as specified in the SCC. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier



or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.

- 26.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- 26.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.
- 26.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 26.4.
- 26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.

27. Liquidated Damages

- 27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the delivered price of the delayed Goods.



or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 35.

28. Warranty

- 28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 28.2 Subject to GCC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
- 28.3 Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- 28.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

29. Patent Indemnity

- 29.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:



- (a) the installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and
- (b) the sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

29.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.

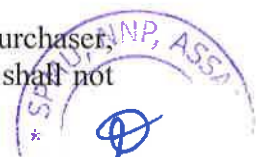
29.4 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.

29.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.

30. Limitation of Liability

30.1 Except in cases of criminal negligence or willful misconduct,

- (a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser, and
- (b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not



exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement.

31. Change in Laws and Regulations

31.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in India, where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

32. Force Majeure

32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

32.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

33. Change Orders and Contract Amendments

33.1 The Purchaser may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

- (a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- (b) the method of shipment or packing;



- (c) the place of delivery; and
- (d) the Related Services to be provided by the Supplier.

33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Purchaser's change order.

33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

33.4 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

34. Extensions of Time

34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

35. Termination

35.1 Termination for Default

- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
 - (i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 34;



- (ii) if the Supplier fails to perform any other obligation under the Contract; or
 - (iii) if the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GCC Clause 3, in competing for or in executing the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

35.2 Termination for Insolvency.

- (a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

35.3 Termination for Convenience.

- (a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- (b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
- (i) to have any portion completed and delivered at the Contract terms and prices; and/or
 - (ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.



36. Assignment

36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.



APPENDIX TO GENERAL CONDITIONS

Bank's Policy- Corrupt and Fraudulent Practices

(text in this Appendix shall not be modified)

Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:

“Fraud and Corruption:

1.16 It is the Bank's policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts.¹³ In pursuance of this policy, the Bank:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

- (i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;¹⁴
- (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;¹⁵
- (iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;¹⁶
- (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;¹⁷
- (v) “obstructive practice” is:

¹³ In this context, any action to influence the procurement process or contract execution for undue advantage is improper.

¹⁴ For the purpose of this sub-paragraph, “another party” refers to a public official acting in relation to the procurement process or contract execution. In this context, “public official” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

¹⁵ For the purpose of this sub-paragraph, “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

¹⁶ For the purpose of this sub-paragraph, “parties” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other's bid prices or other conditions.

¹⁷ For the purpose of this sub-paragraph, “party” refers to a participant in the procurement process or contract execution.



- (aa) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or
 - (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 1.16(e) below.
- (b) will reject a proposal for award if it determines that the bidder recommended for award, or any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
 - (c) will declare misprocurement and cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement or the implementation of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
 - (d) will sanction a firm or individual, at any time, in accordance with the prevailing Bank's sanctions procedures,¹⁸ including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated¹⁹;
 - (e) will require that a clause be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers and contractors, and their sub-contractors, agents, personnel, consultants, service providers, or suppliers, to permit the Bank to inspect all accounts, records, and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank."

¹⁸ A firm or individual may be declared ineligible to be awarded a Bank financed contract upon: (i) completion of the Bank's sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding. See footnote 14 and paragraph 8 of Appendix 1 of these Guidelines.

¹⁹ A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.



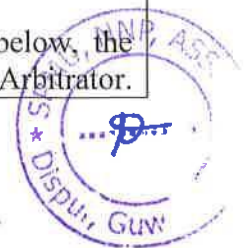
SECTION IX. SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

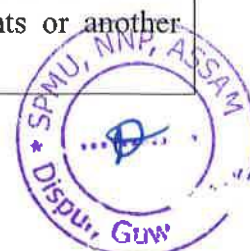
GCC 1.1(j)	The Purchaser is: State Project Management Unit (SPMU) Neer Nirmal Pariyojana- Assam (NNP-Assam) Represented by: Project Director, SPMU, NNP-Assam
GCC 1.1 (o)	The Project Site(s)/Final Destination(s) is/are: Water Quality Monitoring and Surveillance Laboratories of District Project Management Units (DPMU) of Project District-Jorhat for Lot 1 Project District-Morigaon for Lot 2 Project District-Bongaigaon for Lot 3 Project District-Hailakandi for Lot 4 Project District-Sivasagar for Lot 5 Project District-Kamrup for Lot 6 (as detailed in Part 2 – Supply Requirements).
GCC 4.2 (a)	The meaning of the trade terms shall be as prescribed by INCOTERMS 2010 published by the International Chamber of Commerce.
GCC 4.2 (b)	The version edition of Incoterms shall be INCOTERMS 2010 published by the International Chamber of Commerce.
GCC 8.1	For <u>notices</u> , the Purchaser's address shall be: Attention: Project Director, SPMU, NNP-Assam Address: Redstone Building, G.S Road, Dispur Floor number: 5th Floor City: Guwahati PIN Code: 781022 Country: : India Telephone: 091-0361-2334345 Facsimile number: Not Available Electronic mail address: assam_worldbank@rediffmail.com
GCC 10.2	Settlement of Disputes



	<p>The dispute settlement mechanism to be applied for adhoc arbitration shall be as follows:</p> <p>(a) In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 arbitrators one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the *Indian Council of Arbitration/president of the institution of Engineers (India)/The International center for Alternative Dispute Resolution (India).</p> <p>(b) In the case of a dispute with a Foreign Supplier, the dispute shall be settled in accordance with provisions of UNCITRAL (United nations Commission on International Trade Law) Arbitration Rules. The Arbitral Tribunal shall consist of three Arbitrators one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties, and shall act as presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the *Indian Council of Arbitration/President of the Institution of Engineers (India)/The International Centre of Alternative Dispute Resolution (India).</p> <p>(c) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) and (b) above, within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the *Indian Council of Arbitration/president of the Institution of Engineers (India)/The International Centre for Alternative Dispute Resolution (India), both in cases of the Foreign supplier as well as Indian supplier, shall appoint the arbitrator. A certified copy of the order of the *Indian Council of Arbitration/President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India), making such an appointment shall be furnished to each of the parties.</p>
	<p>(d) Arbitration proceedings shall be held at Guwahati, Assam, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.</p> <p>(e) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself.</p> <p>(f) Where the value of the contract is Rs. 10 million and below, the disputes or differences arising shall be referred to the Sole Arbitrator.</p>



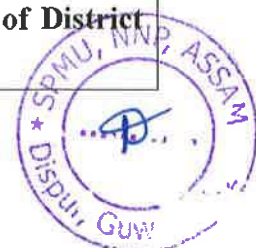
	<p>The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority namely the *Indian Council of Arbitration/President of the Institution of Engineers (India)/The International Centre for Alternative Dispute Resolution (India).</p> <p>(g) Except otherwise agreed to by the Parties, Arbitrators should give a decision in writing within 120 days of receipt of notification of dispute.</p>
GCC 12.1 and 25.2	The scope of supply for the Goods and Related Services to be supplied shall be as specified in the <i>Schedule of Requirements</i> attached.
GCC 13.1	<p>Details of Shipping and other Documents to be furnished by the Supplier are given below:</p> <p>GCC 13.1 Upon delivery of the goods to the transporter/consignee, the supplier shall notify the purchaser and mail the following documents to the Purchaser :</p> <ul style="list-style-type: none"> (i) 2 Copies of the Supplier invoice showing contract number, goods description, quantity, unit price, total amount; (ii) Delivery note, Railway receipt, or Road consignment note or equivalent transport document or acknowledgement of receipt of goods from the Consignee; (iii) 4 Copies of packing list identifying contents of each package; (iv) Insurance certificate; (v) Manufacturer's/Supplier's warranty certificate; (vi) Inspection certificate issued by the nominated inspection agency, and the Supplier's factory inspection report; and (vii) Certificate of origin. <p>The above documents shall be received by the Purchaser before arrival of the Goods (except where it is handed over to the Consignee with all documents) and if not received, the supplier will be responsible for any consequent expenses.</p>
GCC 15.1	The prices charged for the Goods supplied and the related Services performed shall not be adjustable.
GCC 16.1	GCC 16.1 Payment shall be made in Indian Rupees in the following manner:
	<ul style="list-style-type: none"> (a) (i) <i>Advance Payment:</i> Ten (10) % of the total contract price shall be paid within thirty (30) days of signing of Contract and upon submission of claim / against a simple receipt and a bank guarantee for the equivalent amount valid until the goods are delivered and in the form provided in the bidding documents or another form acceptable to the Purchaser.



	<p>(ii) <i>On Delivery</i>: Eighty (80)% of the contract price shall be paid on receipt of Goods and upon submission of the documents specified in Clause 13 of SCC; and</p> <p>(iii) <i>On Final Acceptance</i>: the remaining ten (10) % of the Contract Price shall be paid within thirty (30) days after the date of the Acceptance Certificate issued by the Purchaser's representative in the proforma given in Section VII - item 6.</p> <p>(b) The supervision charges and the to-and-fro travel charges shall be paid for the actual person days deployed and actual number of visits undertaken by the supervisor(s) within thirty (30) days of receipt of claim. No charges will be paid for intervening and preceding holidays. A Person day shall consist of eight working hours during a period of 24 hours. In case of work beyond eight hours (during the said period of 24 hours) such periods shall be added and the total number of hours achieved shall be converted into person days, presuming each person day consists of eight working hours.</p>
	<p>(c) (i) For all the payments to be made, against Bank guarantees, the bank guarantee shall be issued by a Scheduled Indian Bank or a foreign bank located in India in the format enclosed at Section X. The guarantees issued by other banks should be confirmed by a Scheduled Indian Bank or a foreign bank operating in India.</p> <p>(ii) Bank guarantees for advance payment shall be released not later than 30 days after the date of completion of supply of the goods at their final destination.</p>
GCC 16.5	<p>The payment-delay period after which the Purchaser shall pay interest to the supplier shall be 120 days.</p> <p>The interest rate that shall be applied is 5.00%.</p>
GCC 17	<p>In the case of tax/ duty waiver, the purchaser will issue only the certificates in terms of the Government of India's notification as per information given by supplier in form stipulated in Section IV. Supplier is solely responsible for obtaining such benefits and in case of failure to receive such benefits, the purchaser will not compensate the supplier separately.</p>
GCC 18.1	<p>Performance Security to the Purchaser shall be for an amount of 10% of the contract value, valid up to 60 days after the date of completion of performance obligations including warranty obligations.</p> <p>In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/ replaced material shall be extended to a further period of 12 months and the Performance Bank guarantee for proportionate value shall be extended 60 days over and above the extended warranty period.</p>



GCC 18.3	If required, the Performance Security shall be in the form of a “Bank Guarantee” or “Fixed Deposit Receipt” drawn in favour of the Purchaser.
GCC 18.4	Discharge of the performance Security shall take place not later than 60 days following the date of completion of the Supplier’s performance obligations, including the warranty obligation, under the contract.
GCC 18.5	Add as Clause 18.5 to the GCC the following: In the event of any contractual amendment, the Supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the Performance Security, rendering the same valid for the duration of the Contract, as amended for 60 days after the completion of performance obligations including warranty obligations.
GCC 23.2	<u>Packing Instructions:</u> The Supplier will be required to make separate packages for each Consignee. Each package will be marked on three sides with proper paint/indelible ink with the following: (i) Project; (ii) Contract No.; (iii) Country of Origin of Goods; (iv) Supplier’s Name; (v) Packing List Reference Number. Suppliers should use recycled materials as much as possible for packing
GCC 24.1	The insurance shall be paid in an amount equal to 110 percent of the EXW value of the Goods from “Warehouse to warehouse (final destination)” on “All Risks” basis including War Risks and Strikes.
GCC 25.1	The Supplier is required under the Contract to transport the Goods duly insured to the specified final destination, and all related costs shall be included in the Contract Price.
GCC 25.2	Incidental services to be provided are: Pursuant to GCC Clause 25.2, the price quoted for incidental services shall be included in the bid price by the supplier.
GCC 26.1	The inspections and tests shall be: as per Indian/International standards for the goods to be supplied.
GCC 26.2	The Inspections and tests shall be conducted at: a place mutually agreed between the parties within India.
GCC 27.1	The liquidated damages shall be: 0.5% of contract price per week or part thereof.
GCC 27.2	The maximum amount of liquidated damages shall be: 10% of the contract price.
GCC 28.3	The period of validity of the Warranty shall be: Same as given in GCC 28.3. For purposes of the Warranty, the place(s) of final destination(s) shall be: Water Quality Monitoring and Surveillance Laboratories of District Project Management Units (DPMU) of



	Project District-Jorhat for Lot 1 Project District-Morigaon for Lot 2 Project District-Bongaigaon for Lot 3 Project District-Hailakandi for Lot 4 Project District-Sivasagar for Lot 5 Project District-Kamrup for Lot 6
GCC 28.5	The period for repair or replacement shall be: 15 days.
GCC 31.1	This clause will apply only to variations in GST and other taxes payable in India on the final product which is being supplied and not for variations in tax on the individual components / raw materials which go into the product.



Attachment: Price Adjustment Formula

If in accordance with GCC 15.2, prices shall be adjustable, the following method shall be used to calculate the price adjustment:

- 15.2 Prices payable to the Supplier, as stated in the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labor and material components in accordance with the formula:

$$P_1 = P_0 \left[a + \frac{bL_1}{L_0} + \frac{cM_1}{M_0} \right] - P_0$$

$$a+b+c = 1$$

in which:

- P_1 = adjustment amount payable to the Supplier.
 P_0 = Contract Price (base price).
 a = fixed element representing profits and overheads included in the Contract Price and generally in the range of five (5) to fifteen (15) percent.
 b = estimated percentage of labor component in the Contract Price.
 c = estimated percentage of material component in the Contract Price.
 L_0, L_1 = labor indices applicable to the appropriate activity in the country of origin on the base date and date for adjustment, respectively.
 M_0, M_1 = material indices for the major raw materials on the base date and date for adjustment, respectively, in the country of origin.

The coefficients a , b , and c as specified by the Purchaser are as follows:

- a = [insert value of coefficient]
 b = [insert value of coefficient]
 c = [insert value of coefficient]

The Bidder shall indicate the source of the indices and the base date indices in its bid.

Base date = thirty (30) days prior to the deadline for submission of the bids.

Date of adjustment = [insert number of weeks] weeks prior to date of shipment (representing the mid-point of the period of manufacture).

The above price adjustment formula shall be invoked by either party subject to the following further conditions:

- (a) No price adjustment shall be allowed beyond the original delivery dates unless specifically stated in the extension letter. As a rule, no price adjustment shall be allowed for periods of delay for which the Supplier is entirely responsible. The Purchaser will, however, be entitled to any decrease in the prices of the Goods and Services subject to adjustment.
- (b) No price adjustment shall be payable on the portion of the Contract Price paid to the Supplier as advance payment.



SECTION X – CONTRACT FORMS



1. LETTER OF ACCEPTANCE

[letterhead paper of the Purchaser]

[date]

To: *[name and address of the Supplier]*

Subject: *Notification of Award Contract No.*

This is to notify you that your Bid dated *[insert date]* for execution of the
. . . *[insert name of the contract and identification number, as given in the SCC]*.
. . . for the Accepted Contract Amount of *[insert amount in numbers and words in Rupees]*, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 21 days in accordance with the Conditions of Contract, using for that purpose the of the Performance Security Form included in Section X, Contract Forms, of the Bidding Document.

Authorized Signature: _____
Name and Title of Signatory: _____
Name of Agency: _____

Attachment: Contract Agreement



2. CONTRACT AGREEMENT

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

THIS CONTRACT AGREEMENT is made

the *[insert: **number**]* day of *[insert: **month**], [insert: **year**]*.

BETWEEN

- (1) *[insert complete name of Purchaser], a [insert description of type of legal entity, for example, an agency of the Ministry of of the Government of { insert name of Country of Purchaser }, or corporation incorporated under the laws of { insert name of Country of Purchaser }] and having its principal place of business at [insert address of Purchaser] (hereinafter called "the Purchaser"), and*
- (2) *[insert name of Supplier], a corporation incorporated under the laws of [insert: country of Supplier] and having its principal place of business at [insert: address of Supplier] (hereinafter called "the Supplier").*

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., *[insert brief description of Goods and Services]* and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of *[insert Contract Price in words and figures, expressed in Rs.]* (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract Agreement. This Agreement shall prevail over all other contract documents: In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed below.
 - (a) The letter of Acceptance
 - (b) this Contract Agreement
 - (c) The Supplier's letter of Bid and original completed Schedules including Price Schedules
 - (d) Special Conditions of Contract
 - (e) General Conditions of Contract
 - (f) Technical Requirements (including Schedule of Requirements and Technical Specifications)
 - (g) *[Add here any other document(s) listed in GCC/SCC as part of contract]*
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the



Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *[insert the name of the Contract governing law country]* on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: *[insert signature]*
in the capacity of *[insert title or other appropriate designation]*
in the presence of *[insert identification of official witness]*

For and on behalf of the Supplier

Signed: *[insert signature of authorized representative(s) of the Supplier]*
in the capacity of *[insert title or other appropriate designation]*
in the presence of *[insert identification of official witness]*



3. Performance Security - Bank Guarantee

[Guarantor letterhead or SWIFT identifier code]

Performance Guarantee No.....*[insert guarantee reference number]*

Date.....*[insert date of issue of the guarantee]*

To: _____ *[name of Purchaser]*

_____ *[address of Purchaser]*

WHEREAS _____ *[name and address of Supplier²⁰]* (hereinafter called "the Applicant") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ *[name of Contract and brief description of Goods and related Services]* (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Applicant shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Applicant such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Applicant, up to a total of _____ *[amount of guarantee²¹]* _____ *[in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ *[amount of guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Applicant before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Goods and related Services to be supplied thereunder or of any of the Contract documents which may be made between you and the Applicant shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

²⁰ In the case of a JV, insert the name of the Joint Venture

²¹ An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract and denominated in Indian Rupees.



This guarantee shall be valid until (i.e.) 60 days following the Completion date of the Contract including any warranty obligations²², and any demand for payment under it must be received by us at this office on or before that date.

Signature and seal of the guarantor _____

Name of Bank _____

Address _____

Date _____

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.



²² Completion date as described in GC Clause 18.4

4. Advance Payment Security

Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Advance Payment Guarantee No.....*[insert guarantee reference number]*

Date.....*[insert date of issue of the guarantee]*

To: _____ *[name of Purchaser]*
 _____ *[address of Purchaser]*
 _____ *[name of Contract]*

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Clause 16 ("Terms of Payment") of the above-mentioned Contract, _____ *[name and address of Supplier²³]* (hereinafter called "the Applicant") shall deposit with _____ *[name of Purchaser]* a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____ *[amount of guarantee²⁴]* _____ *[in words]*.

We, the _____ *[bank or financial institution]*, as instructed by the Applicant, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ *[name of Purchaser]* on his first demand without whatsoever right of objection on our part and without his first claim to the Applicant, in the amount not exceeding _____ *[amount of guarantee]* _____ *[in words]*.

We further agree that no change or addition to or other modification of the terms of the Contract or of Goods and related Services to be supplied thereunder or of any of the Contract documents which may be made between _____ *[name of Purchaser]* and the Applicant, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until _____ *[name of Purchaser]* receives full repayment of the same amount from the Applicant. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

²³ In the case of a JV, insert the name of the Joint Venture

²⁴ An amount shall be inserted by the bank representing the amount of the Advance Payment, and denominated in Indian Rupees.



Yours truly,

Signature and seal: _____

Name of Bank: _____

Address: _____

Date: _____

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

