MINUTES OF THE MEETING

TENDER FOR SUPPLY, INSTALLATION, COMMISSIONING AND VALIDATION OF LAB EQUIPMENTS AT PII, COONOOR

Document No.	:	**NPI/110831/EQP/TD/15 Dated: 26.02.2016**
Venue	:	**HLL Biotech Limited, Chennai**
Date	:	**07.03.2016 – 10.03.2016**
Project	:	**Revival of DPT Vaccines manufacturing facility**
Attendees	:	**See attached list of attendees**
Issued on	:	**15th March'2016**
Issued from	:	**Chief Executive Office - HBL**

Agenda	
1.	Pre-bid Meeting for Lab equipment's at PII, Coonoor.

	Tender for Supply , Installation, commissioning and Validation of Lab Equipment's at PII, Coonoor
A	**Discussion on Tender Enquiry Document: NPI/110831/EQP/ TD/15**
	General Discussion Points – Last Date & Time of Bid Submission and Technical Bid Opening

Schedule . No	Equipment	Bid Submission	Technical Bid Opening
		Date & Time	Date & Time
1	Ultra-Low Temperature Deep Freezer(-80°C)	28.03.2016 & 10.30 Hrs.	28.03.2016 & 11.00 Hrs.
2	Low Temperature Deep Freezer (-20°C)	28.03.2016 & 10.30 Hrs.	28.03.2016 & 11.00 Hrs.
3	Refrigerator (cGMP)	28.03.2016 & 10.30 Hrs.	28.03.2016 & 11.00 Hrs.
4	Analytical weighing Balance	28.03.2016 & 10.30 Hrs.	28.03.2016 & 11.30 Hrs.
	Weighing Balance		
	Animal Weighing balance		
5	Incubator with Shaker	28.03.2016 & 10.30 Hrs.	28.03.2016 & 11.30 Hrs.
6	Bacterial Incubator	28.03.2016 & 10.30 Hrs.	28.03.2016 & 11.30 Hrs.
7	SS Platform shaker	28.03.2016 & 10.30 Hrs.	28.03.2016 & 11.30 Hrs.
8	TOC Analyzer	29.03.2016 & 10.30 Hrs.	29.03.2016 & 11.00 Hrs.
9	UV- Visible Spectrophotometer	29.03.2016 & 10.30 Hrs.	29.03.2016 & 11.00 Hrs.
10	Table top Lyophilizer	29.03.2016 & 10.30 Hrs.	29.03.2016 & 11.30 Hrs.
11	Water bath	29.03.2016 & 10.30 Hrs.	29.03.2016 & 11.30 Hrs.
12	Inspissator	29.03.2016 & 10.30 Hrs.	29.03.2016 & 11.30 Hrs.
14	Cryogenic storage container	29.03.2016 & 10.30 Hrs.	29.03.2016 & 11.30 Hrs.
15	Vacuum Tester	30.03.2016 & 10.30 Hrs.	30.03.2016 & 11.00 Hrs.
16	Stability chamber	30.03.2016 & 10.30 Hrs.	30.03.2016 & 11.00 Hrs.
17	Binocular compound microscope	30.03.2016 & 10.30 Hrs.	30.03.2016 & 11.00 Hrs.
18	Peristaltic Pump	30.03.2016 & 10.30 Hrs.	30.03.2016 & 11.00 Hrs.
19	pH Meter	30.03.2016 & 10.30 Hrs.	30.03.2016 & 11.00 Hrs.
20	Table Top Centrifuge	30.03.2016 & 10.30 Hrs.	30.03.2016 & 11.30 Hrs.
21	Table Top Cooling Centrifuge	30.03.2016 & 10.30 Hrs.	30.03.2016 & 11.30 Hrs.
22	Refrigerated centrifuge	30.03.2016 & 10.30 Hrs.	30.03.2016 & 11.30 Hrs.
23	ELISA Reader	31.03.2016 & 10.30 Hrs.	31.03.2016 & 11.00 Hrs.
24	Colony Counter	31.03.2016 & 10.30 Hrs.	31.03.2016 & 11.00 Hrs.
25	Anesthesia System	31.03.2016 & 10.30 Hrs.	31.03.2016 & 11.00 Hrs.
26	Kjeldhal apparatus	31.03.2016 & 10.30 Hrs.	31.03.2016 & 11.00 Hrs.
27	Endotoxin Detection kit	31.03.2016 & 10.30 Hrs.	31.03.2016 & 11.00 Hrs.

S. No.	Clarifications on URSs	
B	URS: NPI_110831_EQP_URS_ 15	
	Specific revision in the URS	
	URS Point number and excerpt* / description of the specification *	**Point modified as / Comment**
C.	**Schedule No 1. Ultra –Low Temperature Deep Freezer (-80°C)**	
1.	2.9 Temperature precision (setting resolution) : ± 0.5 °C	Temperature precision (setting resolution) : ± 0.2 °C
2.	2.10 Temperature resolution : ± 0.1 °C	Temperature readability : ± 0.1 °C
3.	2.11 Control & Display : Touch key pad with LED display mounted in the door	Control & Display : Touch key pad with LED display
4.	2.13 Temperature uniformity : ± 3.0 °C	Temperature during validation / Thermal mapping : ± 5.0 °C (Vendor to ensure temperature uniformity and recovery)
5.	2.16 Set point security	Deleted
6.	2.17 Chart Recorder : To be provided	Chart Recorder: Weekly-circular chart recorder. Also, data logging to be provided. i. Non editable batch report or complete report to be provided ii. Data transfer through Ethernet cable. iii. laser printer, Power back-up[UPS] and PC is in vendor scope of supply iv. 20 no's circular chart to be provided as part of supply
7.	2.18 Air circulation : Natural Circulation	Deleted
8.	4.2 Auto defrost to be provided	Deleted
9.	4.5 The control shall be microprocessor based with digital display cum controller.(SMS alert at the time of deviation temperature)	The control shall be microprocessor based with digital display cum controller.(One mobile SMS alert at the time of deviation temperature)
10.	4.10 Positive air circulation by internal fans must be provided to ensure temperature uniformity and recovery.	Deleted
11.	4.11 Audio Visual Alarms for parameters like high temperature, low temperature shall be provided.	Audio Visual Alarms for parameters like high temperature, low temperature and door opening if door opened more than 1 minute shall be provided.
12.	4.13 Spring loaded, self-closing door with 90° angle stay open feature should be provided with holder.	Deleted

D.	Schedule No 2.Low Temperature Deep Freezer (-20°C)	
13.	1.1 B1-DPF 01 ,capacity : TBD (It Should store minimum 200Kg of meat)	1.1 B1-DPF 01 ,capacity : Minimum or nearest to the standard (It Should store minimum 200Kg of meat), Type: Horizontal
14.	New addition	**Added:- [Vertical Type]** 1.6 M1-DPF 04 , Capacity(L) 100 or nearest to the std. ,Qty-1No. 1.7 QA-DPF 01 , Capacity(L) 100 or nearest to the std. ,Qty-1No. 1.8 DO-DPF 01 , Capacity(L) 100 or nearest to the std. ,Qty-1No. 1.9 M1 DPF 03- Capacity (L) 300, Quantity – 1 no.
15.	2.11 Temperature range : -10 to -30 °C	2.11 Temperature set point : -10 to -30 °C
16.	2.18 Chart Recorder :To be provided	2.18 Chart Recorder : i. Only for B1 DPF 01,A2 DPF 01_02,A1 DPF 01_02, QA-DPF 01 & DO-DPF 01. ii. 20 no's circular chart to be provided as part of supply For **M1 DPF 01,03&04** Data logging system and SMS alert required.
17.	2.19 Air circulation :Natural circulation	2.19 Air circulation :Natural circulation/forced air circulation
18.	2.2 Total Quantity :- 6No.s	2.2 Total Quantity:-10No.s
19.	3.0 Body Construction : Inner Door- SS 304 for each shelf(not applicable for horizontal deep freezer)	Deleted
20.	4.2 Auto defrost to be provided	Deleted
21.	4.13 Spring loaded, self-closing door with 90° angle stay open feature should be provided with holder.	Deleted
E.	**Schedule No 3. Refrigerator (GMP)**	
22.	2.3 B1-RFR 05 : Minimum capacity – 160 L	2.3 B1-RFR 05 : Minimum capacity – 300 L
23.	2.6 M1-RFR 01,02: Minimum capacity – 360 L, Vertical double door	2.6 M1-RFR 01,02: Minimum capacity – 300 L, Vertical single door
24.	3.14 Quantity : 300L- 11no.s, 160L-1 no., 360L-2 no.s	3.14 Quantity : 300L- 14 no.s
25.	4.6 Door : Stainless steel door	4.6 Door : SS 304/Powder coated

26.	5.12 Spring loaded, self-closing door with 90° angle stay open feature should be provided with holder.	Deleted
F.	**Schedule No 4. Analytical weighing balance**	
27.	2.5 Readability : 0.001 g	2.5 Readability : refer below table 1

Table 1

Equipment ID	Block Name	Quantity	Capacity	Range	Readability	Room Name	Room No	Room dimension in mm	Room height in mm
B1-WGB-01	Diphtheria	1	5 mg	0.1mg to 5 mg	0.1mg	IPQC	B1G057	2200×3310	3000
B2-WGB-01	Tetanus	1	5gm	1 mg to 5gm	1mg	IPQC	B2G026	3200×5335	3000
F1-WGB-02	Formulation	1	100g	1 g to 100 gm	.01gm	Weighing +Dispensing	F1G039	4925×2800	3000
F1-WGB-04	Formulation	1	200g	1 g to 200 gm	.01gm	Weighing +Dispensing	F1G039	4925×2800	3000
B1-WGB-02	Diphtheria	1	3 kg	30g to 3000gms	0.1gm	Toxoid Concentration	B1G060	4800X6510	3000
B1-WGB-06	Meat Media Preparation	1				Meat Store	B1G090	3055×1575	3000
A2-WGB-01	Animal Experiment	1				Store Room	A2G011	5000×3230	3000
A2-WGB-04	Animal Experiment	1				Inoculation	A2G016	6250×1910	3000
A2-WGB-05	Animal Experiment	1				Animal Observation-Guinea Pigs	A2G018	5000×10565	3000
A1-WGB-01	Animal Breeding	1				Animal Store	A1G014	6500×2850	2700
A1-WGB-02,03	Animal Breeding	2				Animal Breeding and Weaning	A1G016	7690×6650 11260×7450	2700
A1-WGB-04,05,06	Animal Breeding	3				Store Room	A1F012	3940×3150	2700
A1-WGB-07	Animal Breeding	1				Animal health Monitor Room	A1F014	2850×5215	2700
A1-WGB-08	Animal Breeding	1				Animal Breeding and Weaning	A1G016	7690×6650 11260×7450	2700
A1-WGB-11	Animal Breeding	1				Animal Store Room	A1F013	5530X5215	2700
B1-WGB-03	Diphtheria	1	1 kg	10g to 1000g	0.1gm	Dispensing and Staging	B1G083	2450X5380	3000
B1-WGB-07	Meat Media Preparation	1				Meat Store	B1G090	3055×1575	3000
F1-WGB-01	Formulation	1				Gel preparation	F1G038	5400×5850	3000
M1-WGB-01	Sterile media prepartion and microbiology	1				Lab	M1G039	3020×5050	3000
A2-WGB-03	Animal Experiment	1				Store feed and bedding material	A2G012	1850×2200 3150×3750	3000
A1-WGB-09	Animal Breeding	1				Store Room	A1G015	3600X 2800	2700
A1-WGB-10	Animal Breeding	1				Store Room	A1F012	3940X3150	2700
B1-WGB-04	Pertussis	1	1 g	1 mg to 1000 mg	0.1mg	IPQC	B1G018	2200×3310	3000
B1-WGB-08	Meat Media Preparation	1				Meat Store	B1G090	3055×1575	3000
B1-WGB-05	Pertussis	1	5 kg	50 g to 5000 g	0.2gm	Dispensing and Staging	B1G041	2450×6140	3000
F1-WGB-05	Formulation	1				Weighing +Dispensing	A1G039	4925×2800	3000
F1-WGB-03	Formulation	1	2 kg	20 g to 2000 g	0.1gm	Weighing +Dispensing	A1G016	7690×6650 11260×7450	3000
A2-WGB-02	Animal Experiment	1				Store feed and bedding material	A2G012	1850×2200 3150×3750	3000

28.	2.6 Repeatability : 0.01g	2.6 Repeatability : vendor to specify

29.	2.8 Response time (average) : ≤ 1.1 s	2.8 Response time (average) : not more than 10 sec
30.	2.12 Accuracy : ± 1%, PIIC to specify	2.12 Accuracy : ± 1%,
	Schedule No 4. Weighing balance	
31.	2.4 Capacity 200 kg – 3 no's	2.4 Capacity 200 kg – 3 no's (minimum 800 x 600 mm with ramp)
32.	**3.1** MOC of Body base frame , weighing platter shall be SS 304	
33.	23No.s of printer to be provided for each room mentioned in above table 1	
G.	**Schedule No 5. Incubator with Shaker**	
34.	2.5 Temperature Control(°C) : 5 to 60	2.5 Temperature range (°C): 5 to 60 +/- 1 deg C.
35.	2.9 Platform Size(mm) : vendor to specify	2.9 Platform Size(mm) : To hold 15No.s conical flask x1000ml , 8no.s conical flask x 2000ml & 6no.s of round bottom flask x5000ml[Vendor to provide all size holders for above mentioned spec.]
36.	2.14 Exterior Dimensions : Use to specify	2.14 Exterior Dimensions : Vendor to specify
37.	4.3 Adjustable 3-step fan speed shall be provided for defrosting time and period control.	Deleted
38.	5.1 NA	5.1 Strip chart recorder or usb to be provided
H.	**Schedule No 6. Bacterial Incubator**	
40.	3.6 Display Type : LED Display	Display Type : TFD/LED Display
41.	5.9 It should have lockable adjustable feet and stable casters for stability and easy repositioning incubator	Point Deleted
I.	**Schedule No 7. Platform Shaker**	
42.	3.2 Speed Range(RPM) : 20-600 RPM	3.2 Speed Range(RPM) : 50-170 RPM
43.	5.2 It should work under set temperature and speed range.	5.2 It should work under set speed range.
J.	**Schedule No 8.TOC Analyser**	
44.	Measurement Range	Measurement Range:-0.4 PPB to 100PPM
45.	2.9 Ambient temperature	Deleted
46.	2.10 Sample temperature resolution : 1 °C to 95°C	2.10 Sample temperature resolution : 5 °C to 95°C

47.	2.13 Carrier gas : vendor to specify	2.13 Carrier gas : Cylinder and necessary connection is in vendor scope
48.	2.16 PC specifications : vendor to specify	2.16 PC : vendor to be provided
49.	4.1 Equipment should be provided with suitable detector to measure absolute mass amount of carbon di oxide resulting from sample combustion	4.1 Equipment should be provided with suitable detector to measure absolute mass amount of carbon di oxide resulting from sample combustion / UV light oxidation
50.	4.2 The system shall display TOC temperature and conductivity	Deleted
51.	4.2 Should meet ASTM standard test methods or online monitoring of carbon compounds in water by UV light oxidation	4.2 Should meet ASTM standard test methods
52.	7.1 Following facilities must be provided to protect personnel and equipment	7.1 Auto sampler with 50No.s of wells and Non-editable data to be generated from the system to be provided
53.	7.5 Arrangement of alternative power supply (UPS) to control and monitoring system	7.5 deleted
K.	**Schedule No 9. UV-visible Spectrophotometer**	
54.	2.3 Spectrum Band Width :1 nm	2.3 Spectrum Band Width :variable wavelength
55.	2.5,2.6, Wavelength accuracy : ±0.1 nm at 656nm D2 ±0.3 nm (190 - 1100 nm)	2.5,2.6, Wavelength minimum accuracy : ±0.1 nm at 656 nm D2 ±0.3 nm (190 - 1100 nm)
56.	Photometric ranges : Concentration ± 9999 °C	Photmetric ranges : Concentration – Vendor to specify
57.	3.3 Detector : Silicon photodiode	3.3 Detector : Silicon photodiode/PMT
L.	**Schedule No 10. Table Top Lyophilizer**	
58.	2.6 No of Manifolds : 10 ports with vacuum valves (PIIC to confirm)	2.6 No of Manifolds : Minimum 8 ports with vacuum valves [Manifold for ampoules and vials to be provided]
59.	Point added: 2.13 Vial Crimping tool:-4No.s 2.14 Ampoule sealing tool-4No.s	
60.	2.8 Pump capacity : 144 L/Min or larger vacuum pump displacement required (PIIC to confirm)	2.8 Pump capacity : Minimum 120 L/Min or larger vacuum pump displacement required
61.	4.3 System shall be design to defrost the hot gases rapidly	Deleted
62.	4.11 All type suitable drying accessories shall be provided	4.11 Vendor to specify suitable drying accessories as part of supply
63.	5.1 The equipment should be equipped with RS232 as standard along with USB port also.	5.1 The equipment should be equipped with RS232 / USB

64.	5.4	5.4 deleted
M.	Schedule No 11. Water bath	
65.	1.4 M1-WBH 01	1.4 deleted
66.	2.4 Inner chamber Size :	2.4 Inner chamber size:- To hold 15 no's of flocculation tubes (H: 10cm,OD : 5mm)
67.	2.5 Capacity :	2.5 Capacity:- To hold 15 no's of flocculation tubes in single row having tube size of (H: 10cm,OD : 5mm) with 2/3rd immersed in to water bath
68.	2.16 Quantity : 5 no's	2.16 Quantity : 4 no's -3No.s Transparent type water bath[Min. 5L] 1 No. SS water bath[10L]
69.	3.1 Inner chamber : SS 304 mirror finish	3.1 Inner chamber : Borosilicate glass for B1 WBH 01,B1 WBH 02,B2 WBH 01 for A1 WBH 01- SS 304 with view glass
70.	3.2 Exterior chamber : SS 304 mirror finish	3.2 Exterior chamber : Borosilicate glass for B1 WBH 01,B1 WBH 02,B2 WBH 01 for A1 WBH 01- SS 304 with view glass
N.	**Schedule No 12. Inspissator**	
71.	2.11 Resolution: ± 0. 1°C	2.11 Resolution: ± 0. 7°C
P.	**Schedule no: 14. DS-CSC 01 Cryogenic storage container**	
	URS Point number and excerpt* / description of the specification *	**Point modified as / Comment**
72.	**2..2**	**System capability :- Min. 350-400 Nunc vials[1.8ml]**
73.	2.3 Storage capacity	2.3 Storage capacity:- Mini. 60L -1No. with cryo boxes to store cryovials Transport Tank:- 32L-2No.s with trolley
74.	2.11 Quantity	2.11 Quantity: - Mini. 60L -1No. with cryo boxes Transport Tank:- 32L-2No.s with trolley
75.	6.1 21CFR PART 11 compliance	6.1 deleted
Q.	**Schedule no: 16. URS: NPI_110831_EQP_URS_SBC_01 – Stability Chamber**	
	URS Point number and excerpt* / description of the specification *	**Point modified as / Comment**

<table>
<tr><td>76.</td><td>Point no: 3.1<table><tr><th>Sl. No.</th><th>Equipment ID</th><th>Capacity L</th><th>Operating Temperature ₀C</th><th>Operating RH range</th></tr><tr><td>1</td><td>M1-SBC-01</td><td>300</td><td>37 ± 1°C</td><td>60 ± 5% RH</td></tr></table></td><td><table><tr><th>Sl. No.</th><th>Equipment ID</th><th>Capacity L</th><th>Operating Temperature ₀C</th><th>Operating RH range</th></tr><tr><td rowspan="3">1</td><td rowspan="3">M1-SBC-01</td><td rowspan="3">250</td><td>37 ± 1°C</td><td>60 ± 5% RH</td></tr><tr><td>45 ± 1°C</td><td>70 ± 5% RH</td></tr><tr><td>25 ± 1°C</td><td>40 to 80%</td></tr></table></td></tr>
<tr><td>77.</td><td>Point no: 6.5.12
Accuracy of relative humidity: ±2.0% RH</td><td>Accuracy of relative humidity: ±3.0% RH</td></tr>
<tr><td>78.</td><td>Point no: 6.6.1
Outer panel: Epoxy, Powder Coated GI sheets or pre-fabricated modular panel type</td><td>Point no: 6.6.1
Outer panel: SS 304</td></tr>
<tr><td>79.</td><td>Point no: 6.6.3
Glass window: Double glazed 5mm thick safety glass with desiccant material for moisture trapping between the panels.</td><td>Inner door: Glass</td></tr>
<tr><td>80.</td><td>Point no: 6.6.8
Coving: Anodized aluminum (wall to wall, wall to ceiling, wall to floor)</td><td>Deleted</td></tr>
<tr><td>81.</td><td>Point no: 6.6.8
Fans: Low noise axial fans of SS 304 construction</td><td>Fans: Aluminium with epoxy coated / cGMP compliant</td></tr>
<tr><td>82.</td><td>Point no: 6.6.11
Racks: SS 304</td><td>Racks / shelves: SS 304 with adjustable shelves (min. 3 nos)</td></tr>
<tr><td>83.</td><td>Point no: 6.7.5
Doors shall be electro magnetically operated (Spring loaded, self-closing door with 90° angle stay open feature should be provided with holder).</td><td>Deleted</td></tr>
<tr><td>84.</td><td>Point no: 6.7.7
Display: LCD/ LED (7"-10" VGA colored screen or better) with touch keypad shall be provided at front panel</td><td>Display: LCD/ LED (VGA, min. 4" colored screen or better) with touch keypad shall be provided at front panel</td></tr>
<tr><td>85.</td><td>Point no: 6.7.11
Interface port RS 232 to transfer data to be provided.</td><td>Interface port RS 232 / Ethernet / RJ 485 to transfer data to be provided.</td></tr>
<tr><td>86.</td><td>Point no: 6.7.20
VFD (Variable Frequency drive) shall be provided to control fan speed.</td><td>Constant speed fan shall be provided</td></tr>
<tr><td>87.</td><td>Point no: 6.7.23
Empty load validation to be done for 72 hours with minimum 16 probe data logger.</td><td>Empty load validation to be done at site for 72 hours with minimum 4 probes</td></tr>
</table>

88.	Point no: 6.7.26 Door auto closure to be considered	Deleted
89.	Point no: 6.10.4 PQ specification	Deleted
R.	**Schedule No 17: Binocular Microscope**	
90.	Point no: 4.12 Should be able to generate the report for each test on demand	Deleted
S.	**Schedule No 18: Peristaltic Pump**	
91.	Point no: 2.3 Flow rate range: 10 ml/min – 18000 ml/min	Flow rate range: 50 ml/min – 10000 ml/min
92.	Point no: 2.12 Rotor speed: 0.1 – 400 RPM	Rotor speed: Vendor to specify
93.	Point no: 2.16 IP rating: IP 55 / IP 66	IP rating: IP 55 / IP 65
T.	**Schedule No 19: pH meter**	
94.	Point no: 2.7 Temperature Accuracy: ± 0. 1 - 0.5 °C	Temperature Accuracy: 0. 1 - 0.5 °C
95.	Point no: 4.6 Readymade buffer solution of 4,7,10 to be provided - One set	Readymade buffer solution of 4,7,10 to be provided - One set 500 ml each
96.	Table no: 1 M1-PHM-01 -- Sterility Media Preparation and Microbiology — Lab -- M1G039 – 1	For, M1-PHM-01 This equipment shall be combined pH and Conductivity meter type Range of conductivity: 0 µS/cm – 1000 µS/cm Accuracy: ± 0.5 % Spare electrode: Required
U.	**Schedule No 20: Table top Centrifuge**	
97.	Point no: 1.1 The table top centrifuge shall be used for the separation process of various samples like, blood samples, tissue cultures and other samples in conical flasks and test tubes as per pharmacopeia monograph (EP/USP).	The table top centrifuge shall be used for the separation process of various samples like, blood samples, tissue cultures and other samples in tubes as per pharmacopeia monograph (EP/USP).
98.	Point no: 2.1 Model: cGLP model	Model: cGMP compliant
99.	Point no: 2.5 Rotor type: Fixed angle and Swing bucket Rotor	Rotor type: Fixed angle

100.	Point no: 2.8 Max. Force [xG]: 20913 × g	Deleted
101.	Point no: 2.11 Speed range: 6000 - 8000 RPM	Speed range: 5500 RPM
102.	Point no: 2.9 Capacity: 16 x15 mL	Capacity: Min. 12 x15 mL (Conical & oak ridge tubes type)
103.	Point no: 2.20 Working temperature range: Approx. 5 °C above ambient temperature to 95 °C	Working temperature range: Approx. 5 °C above ambient temperature to 40 °C
104.	Point no: 2.23 (addition)	Equipment shall be provided with Acceleration and Deceleration facility
105.	Point no: 3.2 Rotor MOC: Fiberlite carbon.	Rotor MOC: cGMP Compliant
106.	Point no: 4.1 Should be GLP Compliant	Should be cGMP Compliant
107.	Table no: 1 Capacity: 16 x 15 mL Speed range, RPM: 6000 – 8000	Deleted
108.	Table no: 1 M1-CFG-01 – Sterility Media preparation and Microbiology – 1 – Lab – 16 x 15 mL – 6000 – 8000 – M1G039	Deleted
V.	**Schedule No 21: Table top Cooling Centrifuge**	
109.	Point no: 2.6 Rotor: Swing Type	Rotor: Swing / Fixed Type
110.	Point no: 2.7 Capacity: To hold 50 mL tubes x 16 no's	Capacity: To hold 50 mL tubes x 6 no's
111.	Point no: 2.8 Quantity: 1 No.	Quantity: 4 No.s (One each for D, P, T and QC)
112.	Point no: 2.13 Max. Force [xG]: 20913	Speed: Min. 5500 RPM
113.	Point no: 2.14 (Addition)	Vendor to provide the Adaptor for 15 mL conical and 15 mL oak ridge tubes
114.	Point no: 3.2 Rotor MOC: Fiberlite carbon.	Rotor MOC: cGMP Compliant
W.	**Schedule No 22: Refrigerated Centrifuge**	
115.	Point no: 2.5 Rotor type: Fixed angle and Swing bucket Rotor	Rotor type: Fixed angle
116.	Point no: 2.8 Max. Force [xG]: 7340 × g	Deleted

117.	Point no: 3.2 Rotor MOC: Fiberlite carbon.	Rotor MOC: cGMP Compliant
118.	Point no: 4.1 Should be GLP Compliant	Should be cGMP Compliant
119.	Point no: 4.11 On power failure the instrument should run under alternate power supply without interruption of the operation.	Deleted
120.	Point no: 4.13 (addition)	Vendor to provide the centrifuge bottles of double the quantity.
121.	Table no: 1 Capacity: 6 no's of bottles, each bottle should hold 2000 mL, 7 no's of bottles, each bottle should hold 2000 mL	Capacity to hold 6 nos. of 1L bottles
122.	Table no: 1 Speed Range, RPM: 6000 - 8000	Speed Range, RPM: Minimum 6000
X.	**Schedule No 23: ELISA Reader**	
123.	Point no: 2.1 Microplate Type: 6 to 1536 well plates (Client to confirm)	Microplate Type: 96/384 wells, Cuvettes
124.	Point no: 2.2 Filters: Standard Filtration system	Filters: Standard Filtration system / Monochromatic Based System.
125.	Point no: 2.6 Read out range: 0 to 6 Abs	Read out range: 0 to 4 Abs
126.	Point no: 2.9 Temperature control: 4 °C to 50 °C	Temperature control: 4 °C to 45 °C
127.	Point no: 2.10 Wavelength range: 200 nm to 1000 nm	Point no: 2.10 Wavelength range: 200 nm to 800 nm
128.	Point no: 2.17 (Addition)	PC to be considered for this equipment along with printer
Y.	**Schedule No 26: Kjeldhal Apparatus**	
129.	Point no: 2 Kjeldhal apparatus containing 1 no of digestion system, 1 no of distillation unit and 1 no of titration system.	Kjeldhal apparatus containing 1 no of digestion system, 1 no of distillation unit and 1 no of titration system (inbuilt & shall be Colorimetric / Photometric).
130.	Point no: 2.1.2 Type: Portable	Type: Benchtop
131.	Point no: 2.1.3 Operating temperature: 50 °C - 480 °C	Operating temperature: Ambient to 450 °C
132.	Point no: 2.1.8 Time setting per step: 1 – 1199 min	Time setting per step: 1 – 999 min

133.	Point no: 2.2.2 Type: Portable	Type: Benchtop
134.	Point no: 3.1 Distillation unit: SS 316 with epoxy coated or Vendor to specify	Distillation unit: SS 316 with epoxy coated or cGMP Compliant
135.	Point no: 3.2 Digestion System: SS 316 or Vendor to specify	Digestion System: SS 316 or cGMP Compliant
136.	Point no: 3.3 Doors: Polypropylene or Vendor to specify	Doors: Polypropylene or cGMP Compliant
137.	Point no: 4.1.2 It should have provision for measurement of actual temperature using external temperature probe.	Deleted
138.	Point no: 4.1.3 Touch screen should be LED/ LCD digital display for temperature readout and heater indication.	Vendor to specify
139.	Point no: 4.1.6 Samples size of solids/ liquids should be specified by PIIC.	Samples size of solids/ liquids should be 5 to 10 mL
140.	Point no: 4.1.9 (addition)	The digestion unit shall be Block digestion / IR digestion type
141.	Point no: 4.2.4 It should have Alkali resistant Poly Propylene Plastic Splash head for long life time.	It should have Alkali resistant Plastic (or cGMP compliant) Splash head for long life time.
142.	Point no: 4.2.6 The Steam Generator must be made of glass and should be visible from outside, so that the operator will know when to clean the salt residues	The Steam Generator must be made of glass and should be easily visible, so that the operator will know when to clean the salt residues
143.	Point no: 5.8 Optionals: • Level sensors for monitoring the level in different tanks • Titration set • Acid resistant pump • External dosage devices for back titration	• Titration set • Acid resistant pump • External dosage devices for back titration

For HLL Biotech Limited

15/03/16.

Chief Executive Officer

HBL HLL BIOTECH LIMITED (Subsidiary of HLL Lifecare Limited) (A Government of India Enterprise)

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List of Attendees

Date: 07-Mar-2016

Venue: HBL, TICEL Biopark, Chennai

Project: Pasteur Institute of India ,Coonoor

Subject: Pre-Bid Meeting for supply, installation, commissioning and validation of Lab equipment at PII,Coonoor [For Schedule - 1,2,3 & 4] ,5,6,7

S NO.	NAME	COMPANY	EMAIL ID/ MOB NO.	SIGNATURE
1.	Sridhar babu .k	NNE pharmaplan	9632603789	[signature]
2.	Sujith S.R	HBL	9442173632	[signature]
3.	C. SREEDHARAN	HBL	9600208745	[signature]
4.	R. Kamal.	Cryo Scientific	9790738230	[signature] 07/3/16.
5.	SRINIVASAN. U	AMKETTE ANALYTICS LTD	U.Srinivasan@anmalliance.com 9380087078	[signature]
6.	K. Ramesh	Spinco Analytica (P) Ltd	8754482192	[signature]
7.	A. Gopinath	Citizen Scale (I) Pvt	9940034215	[signature]
8	Prasanna	LC GC Reddy	9543438111	[signature]
9.	S. Suresh	Ultra Instruments	9840359888	[signature]
10.	V. Sankaranarayanan D. Arunkumar.	Essae Teraoka Pvt Ltd.	vsn@essae.com arunkumar.d@essae.com / 7411020009	[signature]
11.	Natarajan.	Smart tech.	9381206940	[signature]
12	Radhakrishnan	SMS - Chennai	9963216000	[signature]
13.	Dr. B. Sundaran	Pasteur Institute of India, Coonoor	9442083883	[signature] 7/3/16
14.	Dr. B. SEKAR	—do—	94442548P3	[signature] 07/3/16
15.	R. MOHAN	Pasteur Institute of India, Coonoor	9790326511	[signature] 07/03/16

16. / [signature]

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List of Attendees

Date: 07-Mar-2016

Venue: HBL, TICEL Biopark, Chennai

Project: Pasteur Institute of India ,Coonoor

Subject: Pre-Bid Meeting for supply, installation, commissioning and validation of Lab equipment at PII,Coonoor [For Schedule - 1,2,3 & 4], 5,6,7

S NO.	NAME	COMPANY	EMAIL ID/ MOB NO.	SIGNATURE
16	C. Palaniappan	Pasteur Institute Coonoor	9486656639	
17.	G. Srinivasan	Thermo Fisher	8754599236.	
18	V. Jaya Singh	Headwinds	9942987603	
19.	A. Anto Felix	HLL	9444486955	
20.	Vigneshwaran T	HLL	9025041256	
21.	VJayaraj S	Eppendorf India	9382299557	
22.	S. Ravi	Neetronic life	9176781378	
23	R. KRISHNA MOORTHI.	Cave Equipments [Scigenies-bio tech]	9790939601	

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List of Attendees

Date:	08-Mar-2016
Venue:	HBL, TICEL Biopark, Chennai
Project:	Pasteur Institute of India ,Coonoor
Subject:	Pre-Bid Meeting for supply, installation, commissioning and validation of Lab equipment at PII,Coonoor [For Schedule – 8,9,10&11]

S NO.	NAME	COMPANY	EMAIL ID/ MOB NO.	SIGNATURE
1.	Sujith S R	HBL	9962173632	
2.	C. PALANIAPPAN	Pasteur Institute of India, Coonoor	9486656639	8/3/16
3.	Dr. B. SUNDARAN	PII Coonoor	9442083883	8/3/16
4.	R. MOHAN	PII, COONOOR	9790326511	08/03/16
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15.	A. Joseph Prathaparam	Swans Biotech	9790935125.	
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List of Attendees

Date: 08-Mar-2016

Venue: HBL, TICEL Biopark, Chennai

Project: Pasteur Institute of India ,Coonoor

Subject: Pre-Bid Meeting for supply, installation, commissioning and validation of Lab equipment at PII,Coonoor [For Schedule – 8,9,10&11]

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List of Attendees

Date: 08-Mar-2016

Venue: HBL, TICEL Biopark, Chennai

Project: Pasteur Institute of India ,Coonoor

Subject: Pre-Bid Meeting for supply, installation, commissioning and validation of Lab equipment at PII,Coonoor [For Schedule – 12,13&14]

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4.	R. MOHAN	PII, COONOOR	9790326511	08/03/16
5.	SRIDHAR BABU.K	NNEpharmaplan	9632603789	K.Sridhar Babu
6.	C. PALANIAPPAN.	Pasteur Institute of India COONOOR.	9486656639	C. Palaniappan 8/3/16.
7.	A. ANTO FELIX	HLL	9444486955	A. Anto Felix
8	Dr. B. SUNDARAN	PII, COONUR	9442083883	8/3/16

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List of Attendees

Date: 09-Mar-2016

Venue: HBL, TICEL Biopark, Chennai

Project: Pasteur Institute of India ,Coonoor

Subject: Pre-Bid Meeting for supply, installation, commissioning and validation of Lab equipment at PII,Coonoor [For Schedule – 15,16,17,18 &19]

S NO.	NAME	COMPANY	EMAIL ID/ MOB NO.	SIGNATURE
1.	Sujith S.R	HBL	9686273632	
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4	R. MOHAN	PII, COONOOR	9790326511	09/03/16
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List of Attendees

Date: 09-Mar-2016

Venue: HBL, TICEL Biopark, Chennai

Project: Pasteur Institute of India ,Coonoor

Subject: Pre-Bid Meeting for supply, installation, commissioning and validation of Lab equipment at PII,Coonoor [For Schedule – 15,16,17,18 &19]

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List of Attendees

Date: 09-Mar-2016

Venue: HBL, TICEL Biopark, Chennai

Project: Pasteur Institute of India ,Coonoor

Subject: Pre-Bid Meeting for supply, installation, commissioning and validation of Lab equipment at PII,Coonoor [For Schedule – 20,21 &22]

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List of Attendees

Date:	10-Mar-2016
Venue:	HBL, TICEL Biopark, Chennai
Project:	Pasteur Institute of India ,Coonoor
Subject:	Pre-Bid Meeting for supply, installation, commissioning and validation of Lab equipment at PII,Coonoor [For Schedule – 23,24,25,26 & 27]

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05	YOGESHA. M J	NNE	9740782605	
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09	Dr. B. SUNDARAN	PII, Coonoor	Sundaran_1957@yahoo.co.in	10/3/16
10	A. ANTO FELIX	HLL	9444486955	
11	G. SRINIVASAN	ThermoFisher	8754599236	
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