

# THE UNIVERSITY OF BURDWAN

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Ref. No. CHEM/Purchase/2018-19/A-H

Dated: 10/01/2019

## NOTICE

Sealed quotations are hereby invited from manufacturers, authorized distributors and sole selling agents (certificate is to be attached) for the purchase of chemicals, glass wares, computers, computer peripherals, minor equipments of laboratories, refrigerators, and servicing of listed equipments as given below. The sealed quotation(s) should reach the undersigned on or before 27/01/2019.

### Terms & Conditions:

1. Chemicals must be of good quality.
2. The quotation must include the final price (inclusive of all; viz, **GST, PAN, INCOME TAX RETURN, any other tax**, etc., if any) of the respective items in INR (Indian rupees).

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**List of chemicals, glass wares, computers, computer peripherals, minor equipments of laboratories, refrigerators and equipments for servicing**

**A.** Quotation for purchase of chemicals.              Vide Annexure I

**B.** Quotation for purchase of

1. A4 Bond paper 75 GSM, 500 sheets/ream
2. Desktop – HP [ Detailed configuration: i3, 4GB (RAM), 1TB, Monitor 19"]
3. 1 KVA offline UPS (Microtech, Neumeric)
4. Canon Xerox machine (Model No. iR2422 L) cartridge
5. Cartridge – HP-1020 black & colour
6. Printer HP 1020+

**C.** Quotation for purchase of lab items.              Vide Annexure II

**D.** Quotation for minor equipments.

1. Suction pump (diaphragm pump/water aspirator pump)
2. Polarimeter
3. Potentiometer
4. Conductivity meter
5. pH meter [EUTECH Instruments p<sup>H</sup> tutor]
6. Magnetic stirrer with hot plate [REMI, 5MLH]
7. Electric Kettle (Prestige:PKOSS-1500W, steel, 1.5 L)
8. Digital balance [SARTORIUS, Max 220 G, d=1 mg (4 digit)]
9. Digital melting point apparatus [BSI Lab, MPA-1D]
10. Micro-oven (Samsung: 21L)
11. Rotary evaporator fitted with pump and thermostatic water bath [SUPERFIT (PBU 6)]

**E.** Required service & maintenance of

1. Millipore water purification system (Merck-Millipore make)
2. Water demineraliser plant (METCON make)
3. FTIR spectrophotometer (Shimadzu IR Prestige-21)
4. Fluorimeter (Hitachi make ,Model F 4500, 7000)
5. GC-MS (Shimadzu GC-17A)
6. UV-VIS spectrophotometer (Shimadzu)
7. Thermoelectric cell holder temperature controller (Schimadzu make) UV-VIS Spectrophotometer.
8. AAS (Varian make, Model AA240Z)
9. Stopped flow spectrophotometer (Hi-Tech Scientific make)
10. Renovation of existing fumes cupboards (08 numbers).

**F. Quotation for ‘BAS’ analysed samples**

1. Manganese ore / Pyrolusite
2. Bauxite
3. Aluminium Bronze- 304/1
4. Brass – 385
5. H. T. Brass- 179/2
6. Stainless steel
7. Phosphorus bronze

**G. Quotation for purchase of ‘CCTV’**

[Specification : DVR – 8 channel ('HIK VISION')  
Camera- 'HIK VISION' dome-shaped 2 mp (4 No.s),  
HDD – 1 TB(SV)  
Cable/Coil  
Monitor – 19.5" with installation charges]

**H. Quotation for purchase of Refrigerator (double door, 260 L capacity, Godrej).**

**Annexure I**  
**LIST OF CHEMICALS**

<b>SL. NO.</b>	<b>ITEM NAME</b>	<b>QUANTITY</b>	<b>BRAND</b>
1	Potassium bisulphate	500 G	SRL
2	Hydrofluoric acid	500 mL	SRL
3	Cetyl trimethyl ammoniumbromide (A.R/G.R)	500 G	Merck
4	Potassium titanyl oxalate	500 G	SRL
5	Zinc nitrate	500 G	SRL
6	Hexamine	500 G	SRL
7	Xylenol orange	100 G	SRL
8	Potassium dichromate	500 G	SRL
9	Stannous chloride	500 G	SRL
10	Mercuric chloride	500 G	SRL
11	Vanadium pentoxide	500 G	SRL
12	Acetyl acetone	500 mL	SRL
13	Sodium carbonate	500 G	SRL
14	Nickel chloride	500 G	SRL
15	Ethylenediammine	500 mL	SRL
16	Ammonium thiocyanate AR	500 G	MERCK
17	Oxalic acid	500 G	MERCK
18	Potassium oxalate	500 G	MERCK
19	Salicylaldehyde	500 mL	SRL
20	Cobalt chloride	500 G	SRL

21	Murexide	100 G	SRL
22	Ammonium chloride	500 G	SRL
23	Sodium acetate	500 G	SRL
24	Potassium hydroxide	500 G	MERCK
25	Sodium hydroxide	500 G	MERCK
26	Urea	500 G	MERCK
27	Starch	500 G	MERCK
28	Potassium iodide	500 G	SRL
29	Sodium thiosulphate	500 G	SRL
30	Diammonium hydrogen phosphate	500 G	SRL
31	Ammonium bifluoride	500 G	SRL
32	Zinc acetate	500 G	SRL
33	Sodium bicarbonate	500 G	SRL
34	Potassium periodate	500 G	SRL
35	Eriochrome black T	100 G	SRL
36	Sodium dodecyl sulphate	500 G	Merck
37	Sodium sulphite	500 G	SRL
38	Sodium bisulphite	500 G	SRL
39	Copper sulphate	500 G	SRL
40	1,10-phenanthroline	500 G	SRL
41	Sodium nitrate	500 G	Spectrochem
42	Silver nitrate	50 G	Spectrochem
43	Potassium chromate	500 G	Spectrochem
44	Sodium chloride	500 G	Spectrochem
45	Anion exchange resin (IRA-400)	500 G	Spectrochem
46	Potassium permanganate	500 G	Spectrochem
47	Ferrous ammonium sulphate	500 G	Spectrochem
48	BDS indicator	100 G	Spectrochem
49	Nitromethane	500 G	Spectrochem
50	Ammonia	2.5 L	Spectrochem

51	8-Hydroxy quinoline	500 G	Spectrochem
52	Bis(N,N'-disalicylidine)ethylene diamine	500 G	SIGMA
53	1-Nitroso-2-naphthol	500 G	MERCK
54	Ferrocene	500 G	SIGMA
55	Triphenyl phosphine	500 G	SIGMA
56	PAN indicator	100 G	MERCK
57	Na <sub>2</sub> EDTA	500 G	Spectrochem
58	Aluminium sulphate	500 G	Spectrochem
59	Nickel(II) carbonate	500 G	Spectrochem
60	Perchloric acid	500 mL	Spectrochem
61	Potassium sulphate	500 G	Spectrochem
62	Ammonium acetate	500 G	Spectrochem
63	Nickel perchlorate hexahydrate	500 G	MERCK
64	Ammonium sulphate	500 G	Spectrochem
65	Dimethylglyoxime	500 G	SRL
66	Copper nitrate	500 G	SRL
67	Potassium bromate	500 G	SRL
68	Potassium aluminium sulphate	500 G	SRL
69	Hydrochloric acid	2.5 L	SRL
70	Sulphuric acid	2.5 L	SRL
71	Nitric acid	2.5 L	SRL
72	Ethanol	2.5 L	Spectrochem
73	Methanol	2.5 L	Spectrochem
74	Toluene	2.5 L	Spectrochem
75	Acetic acid	2.5 L	Spectrochem
76	Acetonitrile	2.5 L	Spectrochem
77	Chloroform	2.5 L	Spectrochem
78	Dimethyl formamide	2.5 L	Spectrochem
79	Dimethylsulphoxide	2.5 L	Spectrochem
80	Silica gel (100-200 mesh) for Column Chromatography	500 G	Spectrochem

81	Silica gel G for TLC	500 G	Spectrochem
82	TLC Silica gel 60F <sub>254</sub> pre-coated on aluminum sheet	20 × 20 cm	MERCK
83	4-aminophenol	100 G	Sigma-aldrich
84	4'-Aminoacetophenone	100 G	Spectrochem
85	Congo Red (indicator)	100 G	Spectrochem
86	Methyl Red (pH indicator)	100 G	Spectrochem
87	Methyl Orange (pH indicator)	100 G	Spectrochem
88	Diethylene Glycol extrapure AR	500 mL	SRL
89	Aniline extrapure AR	500 mL	SRL
90	m-Nitrobenzoic acid pure	500 G	SRL
91	Iodine Resublimed AR	100 G	SRL
92	Resorcinol	250 G	Spectrochem
93	Ethylacetoacetate AR	500 mL	Spectrochem
94	Hydrazine Hydrate 99%	500 mL	Spectrochem
95	Acetone AR	2.5 L	Spectrochem
96	Chloroform AR	2.5 L	Spectrochem
97	Dichloromethane Anhydrous	2.5 L	Spectrochem
98	Petroleum Ether (b.p. 60- 80°C) AR	2.5 L	Spectrochem
99	Ethyl acetate AR	2.5 L	Spectrochem
100	Methanol for HPLC	2.5 L	Spectrochem
101	1,4-Dioxane anhydrous	2.5 L	Spectrochem
102	n-Butyl alcohol extrapure AR	2.5 L	SRL
103	Chlorobenzene AR	500 mL	Spectrochem
104	Hydroxylammonium Chloride	100G	SRL
105	Lead Nitrate	500G	SRL
106	EDTA	100G	SRL
107	Ferric Ammonium Sulphate	500G	SRL
108	Potassium Chloride	500G	SRL
109	Sodium/ Potassium Tartarate	500G	SRL
110	Potassium Sulphate	500G	SRL

111	Bromothymol blue Indicator	25G	SRL
112	Bromine	10mL	SRL
113	Ammonium Nitrate	500G	SRL
114	Ammonium Oxalate	500G	SRL
115	Barium Chloride	500G	SRL
116	Ferric Nitrate	500G	SRL
117	Neo-cuproin	25G	SRL
118	Hydrazine	100 mL	SRL
119	Nickel Nitrate	500 G	SRL
120	Manganese Nitrate	500 G	SRL
121	N,N-Diethyl Ethylene Diammine	500 mL	SRL
123	Cobalt Nitrate	500 G	SRL
124	Phosphoric Acid	2.5 L	SRL
125	Acetone	2.5 L	SRL
126	Calcon Indicator	25G	SRL
127	Zinc Sulphate	500G	SRL
128	Potassium Carbonate	500G	SRL
129	Phenolphthalein	100G	SRL
130	Diethyl Ether	2.5 L	SRL
131	Silver Diethyl Dithio Carbamate (SDDC)	10G	HIMEDIA
132	Pyridine	500mL	SRL
133	Lead Acetate	500G	SRL
134	Para-formaldehyde	500G	HIMEDIA
135	Benzil	250 G	SDFC
136	p-Toluic acid	500 G	Merck
137	Anthracene	500 G	merck
138	4-hydroxy benzoic acid	500 G	Spectrochem
139	4-Nitro aniline	250 G	Loba
140	Salicylic acid	500 G	qualigens
141	3-Nitro benzoic acid	100 G	SRL

142	Cinnamic acid	250 G	SRL
143	4-Chloro benzoic acid	500 G	SRL
144	Benzanilide	500 G	Spectrochem
145	Phthalic acid	500 G	Merck
146	2-Chloro benzoic acid	250 G	SRL
147	Salicylamide	500 G	SRL
148	4-Hydroxybenzaldehyde	250 G	Spectrochem
149	o-Toluic acid	500 G	Himedia
150	3-Nitro aniline	250 G	Spectrochem
151	Phenyl acetic acid	500 G	Merck
152	Methyl 4-hydroxybenzoate	500 G	Acros organics
153	Resorcinol	250 G	qualigens
154	Benzamide	500 G	SDFC
155	Benzophenone	500 G	SRL
156	4-Nitro benzoic acid	500 G	Merck
157	$\alpha$ -Naphthyl acetic acid	100 G	Spectrochem
158	Cyclohexanol	500 mL	SDFC
159	Cyclohexanone	500mL	Spectrochem
160	Acetophenone	500 mL	Spectrochem
161	Diethyl Malonate	500 mL	Merck
162	Methyl Benzoate	500 mL	Merck
163	Diethylphthalate	500 mL	SDFC
164	Benzaldehyde	500 mL	SRL
165	o-chloroaniline	500 mL	Spectrochem
166	Benzyl alcohol	500 mL	Rankem
167	Ethyl Benzoate	500 mL	Acros Organics
168	Sodium nitroprusside	100 G	SDFC
169	2,4 dinitrophenyl hydrazine	100 G	SRL
170	Ferric chloride (anhydrous)	500 G	Rankem
171	Ammonium meta vanadate	100 G	SDFC

172	Metallic sodium	500 G	Merck
173	Ferrous sulphate	500 G	Himedia
174	Benzoyl chloride	500 mL	Qualigense
175	Hydroxylamine hydrochloride	500 G	Merck
176	Litmus paper		Merck
177	Sodium nitrite	500 G	Merck
178	3,5-dinirobenzoic acid	500 G	SRL
179	Benzylamine	500 mL	Spectrochem
180	Sodium acetate	500 G	Rankem
181	Zinc(metal)	500 G	Merck
182	Cromium trioxide	500 G	Merck
183	Picric acid	500 G	Merck
184	Sodium potassium tartarate	500 G	Spectrochem
185	Di-Phosphorous pentoxide	250G	SDFC
186	Calcium Chloride (fused)	500G	Merck
187	Sodium acetate anhydrous (GR)	500G	Merck
188	Potassium bromide	500G	Merck
189	Oleum	1 L	Merck
190	Phenol	500 mL	MercK
191	Tris (hydroxymethyl) Aminomethane	100 G	Qualigens
192	Zinc dust	500 G	SRL
193	Formic Acid	1 L	SRL
194	Benzene	2.5 L	SRL
195	Agar-agar (A.R/G.R)	500 G	Merck
196	Acetic acid (A.R/G.R)	2.5 L	Merck/SRL
197	Ammonium hydroxide (A.R/G.R)	2.5 L	Merck/SRL
198	Ammonium molybdate (A.R/G.R)	500 G	Merck
199	Ammonium nitrate (A.R/G.R)	500 G	Merck
200	Ammonium acetate (A.R/G.R)	500 G	Himedia
201	Barium chloride (A.R/G.R)	500 G	Merck

202	Barium sulphate (A.R/G.R)	500 G	Merck/SRL
203	Boric acid (A.R/G.R)	500 G	Merck/ SRL
204	Benzene (A.R/G.R)	2.5 L	Merck
205	Glucose (A.R/G.R)	500 G	Merck/Himedia
206	Hydrochloric acid (A.R/G.R)	2.5 L	Merck
207	Hydrogen peroxide (A.R/G.R)	500 mL	Merck
208	Manitol (A.R/G.R)	500 G	Merck/SRL
209	Magnesium sulphate (A.R/G.R)	500 G	Merck/ SRL
210	Mercury (A.R/G.R)	100 G	Merck/SRL
211	Mercurous chloride (A.R/G.R)	500 G	Merck/SRL
212	Methyl orange (A.R/G.R)	100 G	Merck
213	Methyl red (A.R/G.R)	100 G	Sigma Aldrich
214	Mohr salt (A.R/G.R)	500 G	Merck
215	Nitric acid (A.R/G.R)	2.5 L	Merck
216	Oxalic acid (A.R/G.R)	500 G	Merck
217	Potassium persulphate (A.R/G.R)	500 G	Merck/SRL
218	Potassium chloride (A.R/G.R)	500 G	Merck/SRL
219	Potassium dichromate (A.R/G.R)	500 G	Merck/SRL
220	Potassium chromate (A.R/G.R)	500 G	Merck/SRL
221	Potassium permanganate (A.R/G.R)	500 G	Merck/SRL
222	Potassium bromide (A.R/G.R)	500 G	Merck/SRL
223	Potassium bromate (A.R/G.R)	500 G	Sigma Aldrich
224	Potassium dihydrogen phosphate (A.R/G.R)	500 G	Merck/SRL
225	Potassium iodide (A.R/G.R)	500 G	Merck
226	Potassium sulphate (A.R/G.R)	500 G	Merck/SRL
227	Potassium ferrocyanide (A.R/G.R)	500 G	Merck
228	Potassium ferricyanide (A.R/G.R)	500 G	Merck
229	Phenolphthalein (A.R/G.R)	250 G	Merck
230	Quinhydrone (A.R/G.R)	500 G	Spectrochem
231	Starch (A.R/G.R)	500 G	Merck

232	Sucrose (A.R/G.R)	500 G	Merck
233	Sodium thiosulphate (A.R/G.R)	500 G	Merck/Himedia
234	Sodium bicarbonate (A.R/G.R)	500 G	Merck
235	Salicylic acid (A.R/G.R)	500 G	Merck/SRL
236	Sulphuric acid (A.R/G.R)	2.5 L	Merck
237	Zinc sulphate (A.R/G.R)	500 G	Merck
238	Zinc dust (A.R/G.R)	500 G/100 G	Merck

**Annexure II**  
**List of Lab items**

<b>SL. NO.</b>	<b>ITEM NO.</b>	<b>BRAND</b>
1	Burette Clamp (Brass)	BOROSIL
2	Three finger Clamp with boss head	BOROSIL
3	Burette Clamp (double) poly	BOROSIL
4	Tongs (Brass) 4"	BOROSIL
5	Wash bottle 500 mL capacity poly	BOROSIL
6	Test tube 5' x 5/8	BOROSIL
7	Filtering test tube, 30 mL capacity	BOROSIL
8	Distillation flask, 30 mL capacity	BOROSIL
9	Adaptor and connector (head & tail)	BOROSIL
10	Graph paper mm division	
11	Surgical gloves (P. M.)	
12	Eye guard	
13	12 hole Water Bath, Electrical (thick wall, best quality)	
14	Heating mantle 250 mL capacity	BOROSIL
15	Pressure tube	BOROSIL
16	Rubber tube (9 mm & 10 mm I. D)	BOROSIL
17	Velvet cork assorted size	BOROSIL
18	Electrical heater 1000 W	
19	Quartz cell 1 cm path length	
20	Big size knife for paper cutter10"	
21	Cello-tape 1" & 1/2"	
22	Fusion tube	REVIERA
23	Straight column	REVIERA
24	Jet for burette	REVIERA
25	Mortar & pastel 250 mL capacity	BOROSIL
26	Retort ring for 2" & 3" funnel	BOROSIL
27	Burette stand 18" long iron	
28	Test tube stand (poly) for 12 test tube	BOROSIL
29	File 6" long	
30	Asbestos centred wire gauge 6" x 6"	BOROSIL
31	Asbestos board 6" x 6"x 1 mm	BOROSIL
32	U tube for 250 mL & 500 mL beaker	REVIERA