DEPT. OF CHEMISTRY

KAPTIPADA COLLEGE, KAPTIPADA, MAYURBHANJ

Apparatus, Glassware's & Chemicals List

SL. NO	ITEMS NAME
	INSTRUMENTS
01	**Visible Spectrophotometer** **(Microprocessor Based)** Technical Specification Micro controller based visible spectrophotometer with 10mm 2 pair glass cuvette, **Wavelength Range**: 320-1020nm, **Spectral Bandwidth**: 2nm, **Wavelength Interval**: 1nm, **Wavelength Accuracy**: ±2nm, **Wavelength Repeatability**: ≤1nm, **Photometric Accuracy**: ±1%T, **Photometric Repeatability**: 0.5%T, **Photometric Range**: 0 -1.999A, 0-199.9%T, **Stray Light**: ≤0.3%T @340nm, **Stability**: ±0.004 A/h @500nm, **Display**: 4digit LCD Screen, **Measuring Mode**: Auto Abs,%T,Conc., **Detector**: Si Photodiode, **Light Source**: Tungsten lamp, **Power Requirement**: AC(220V/50Hz), **Dimensions**: (W x D x H) 450 x 520 x 320mm, **Weight**: 10kg, **Output**: RS-232C Port, **Software CD**: 01no, **RS 232 Cable**: 01no, **Power cable**: 01no **Make: Biolinkk/Br-Biochem/Spectronics/Igene**
02	**Digital Conductivity Meter** Technical Specification **Display**: 3 1/2 Digit LED, **Range**: 0-200S, 0-2,0-20,0-200 & 0-1000mS, **Temperature Compensation**: Manual0-50°C, **Cell Constant Adjustment**: Adjustable, **Conductivity Cell**: Platinum DIP Type, **Resolution**: 0.1S, **Accuracy**: +1% FS +1 Digit, **Power**: 230v + 10% ac, 50 Hz, **Dimensions**: 275 x 175 x 76 mm, **Weight**: 2 kg. (Approx.), **Accessories**: Conductivity Cell, Operation Manual, Dust Cover **Make: Spectronics/Br-Biochem/Biolinkk/Omega India**
03	**Digital PH Meter** **(Microprocessor Based)** Technical Specification **pH Range**: 0-14 pH, **pH Resolution**: 0.01pH, **pH Accuracy**: ±0.02pH emperature compensation: Auto or manual, **Temperature Range**: 0-100°C, **mV Range**: ±1999mV, **mV Resolution**: 1mV, **mV Accuracy**: ±1mV, **Electrode**: pH combination electrode with built in temperature sensor-plastic – EpHP02, **Temperature Electrode**: Built in, **Display**: LCD display, **Power:** 9V/500mA External adaptor, **Meter Dimensions(mm)**: 165(L)x 190(D)x 60(H), **Meter weight**: 700gm, pH & mV Measurement, 3 point pH calibration, Automatic buffer recognition, **Memory**: Memory storage of 100 pH measurements, Bi directional RS 232 interface, **Buffer**: CSpH 4.0, CSpH 7.0, CSpH 9.2 **Make: Br-Biochem/Biolinkk-Contech/Igene/Spectronics**
04	**Digital Colorimeter** **(Microprocessor Based)** Technical Specification **Display**: 3 digit LCD (Micro Controller Base), **Wavelength Range**: 400 to 700 nm, **Resolution**: 1%T, 0.01 ABS, **% Transmittance**: 0-100% (Resolution 1%), **Absorbance**: 0-1.99 (Resolution 0,0.01), **Detector**: Silicon Photo Diode/ Cell, **Keyboard:** Soft Touch Membrane type, **Auto Zeroing**: Available, **Light Source**: Solid-State Light Source, **Sample System**: 10mm path length matched glass test tubes, **Filters**: 8 filters (400, 420, 480, 500, 520, 540, 620, 680 nm), **Power Supply**: 230V ±10% AC, 50Hz, **Dimension**: 235mm X 190mm X110mm, **Weight:** 2.5kg (Approx.) **Make: Spectronics/Omega India/Biolinkk/Br-Biochem**
05	**Magnetic Stirrer with Hot Plate (Ceramic Plate)** Technical Specification **Work plate dimensions**: 135mm(5 inch), **Work plate material**: stainless steel cover with ceramic, **Motor type**: DC motor, **Motor rating input**: 5W, **Motor rating output**: 3W, **Power**: 515W, **Heating output**: 500W, **Voltage**: 100-120/200-240V 50/60Hz, **Stirring positions**: 1, 18%Max. stirring **Quantity**: 3L, Max. **magnetic bar[length]**: 50mm, **Speed range**: 100-1500rpm, **Speed display**: LED, **Temperature display**: LED, **Speed display resolution**: ±1rpm, **Heating temperature range**: Room temp.-280, increment 1°C, **Control accuracy of work plate**: ±1°C(<100°C) ±1%(>100°C), **Overheating protection**: 320°C, **Temperature display accuracy**: ±1°C, **External temperature sensor**: PT1000 (accuracy ±0.5°C), **"Hot" warning**: 50°C, **Protection class**: IP21, **Dimension [W x D x H]**: 150×260×80mm, **Weight**: 1.8kg, Permissible ambient temperature and **humidity**: 5-40°C 80% **Make: Br-Biochem/Biolinkk/Igene/Spectronics**

07	**Digital Melting Point Apparatus** **Technical Specification** Inbuilt silicon, oil bath, stirrer adjustable, Greating rate range upto 275°C with readability of 1°C, Built-in Magnetic Stirrer with electronic speed controller, **Display** 3 Digit LED, **Heating Rate Control**: Electronic, **Stirrer Speed Control**: Electronic, **Temperature Sensor**: PT-100 **Make: Spectronics/Omega India/Igene**
08	**Digital Balance** **Technical Specification** **Capacity**: 200g, **Readability**: 0.001g, **Repeatability**(+/-):0.002g, **Linearity(+/-):**0.002g, **Display**: LCD Back light, **Pan Size(mm):** 80mm, **Operating Temperature**: 15°C to 35°C, **Housing Dimension (WXDXH):** 270 x 190 x 265 mm, **Power Supply**: External Adapter, 100-120VAC 150mA, 220-240VAC 100mA, 50/60 Hz, Default Unit Blocking System, Response time within 3 seconds, 5 units available : g,ct,lb,oz., % Percentage weighing, Counting And Weighing, Fit with inner chargeable DC battery, Linear calibration Standard RS232 with PC software(optional) **Make: Biolinkk/Br-Biochem/Spectronics/Igene**
	GLASS WARE (Pragati/Labsun/Omega India)
01	Beaker 50ml
	Beaker 100ml
	Beaker 250ml
	Beaker 500ml
	Beaker 1000ml
02	Conical Flask 100ml
	Conical Flask 250ml
	Conical Flask 500ml
03	Measuring Flask 50ml
	Measuring Flask 100ml
	Measuring Flask 250ml
	Measuring Flask 500ml
	Measuring Flask 1000ml
04	Measuring Cylinder 10ml
	Measuring Cylinder 100ml
	Measuring Cylinder 250ml
	Measuring Cylinder 500ml
	Measuring Cylinder 1000ml
05	Reagent Bottle 125ml
	Reagent Bottle 250ml
	Reagent Bottle 500ml
06	Test Tube 15x125 (100 unit)
07	Pipette 10ml (V)
	Pipette 20ml (V)
	Pipette 25ml (V)
08	Burette 50ml
09	Separating Funnel 250ml
	Separating Funnel 500ml
10	Funnel 3"
11	Desiccator 6"
12	Chaina Disk 3"
13	Weighing Bottle (25x50) 15ml
14	Dropper 6"
15	Stalganometer
16	Ostwald's Viscometer
17	Wash Bottle 500ml
18	Whatman Filter Paper

	CHEMICALS
01	Phenolphthalein, Sodium Hydroxide Pellets, Hydrochloric Acid, Barium Chloride, Sodium Carbonate, Sodium Bicarbonate, Distilled Water, Methyl Orange, Nitric Acid, Oxalic Acid, Ammonium Ferrous Sulphate, Potassium Dichromate, Potassium Permanganate, Methyl Red, Conc. Sulphuric Acid, Sodium Oxalate, Ferrous Sulphate, Ferric Chloride, Ethanol, Acetic Acid, Sodium Acetate, Potassium Chloride, Citric Acid, Boric Acid, Sodium Chloride, Ammonia Solution, Ammonium Chloride, Sodium Benzoate, Cyclohexene, 2-Propanol, Ethyl Methyl Ketone, Benzoic Acid, p- Nitrophenol, o- Nitrophenol, 1-Butanol, Ninhydrin, Copper Sulphate, Sodium Thiosulphate, Potassium Iodide, Starch, Potassium Thiocyanate, Bleaching Powder, Iodine Solution, Copper Chloride, Manganese Sulphate, Aluminium Potassium Sulphate, Aniline, Acetanilide, A- Naphthol, B- Naphthol, Nitrobenzene, Salicylic Acid, Cerric Ammonium Nitrate, Carbon Tetra Chloride, Methyl Acetate, Ethyl Acetate, Potassium Ferricyanide, Cobalt Nitrate, Potassium Hydroxide Pellets, Dimethylglyoxime, Fehling Solution A, Fehling Solution B, Ammonium Sulphate, Zinc Dust, Calcium Nitrate, Hydrogen Peroxide 30%, Benzene, Barium Sulphate, Petrolium Ether, Pyridine, Xylene, Calcium Chloride, Sodium Sulphite, Magnesium Sulphate, Silver Nitrate, Potassium Chromate, Phosphoric Acid, 2,4-Dinitrophenylhydrozine, Sodium Nitroprusside, Acetaldehyde, Acetone, Benzaldehyde

1/2/21

Principal, 02/02/21
Kaptipada College,
Kaptipada, Mayurbhanj

Manoranjan Pushan
Lecturer in Chemistry.

Pradeep Kumar Behera