



MAHISHADAL RAJ COLLEGE
(Govt. Sponsored) **DEPARTMENT OF BOTANY**
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LIST OF INSTRUMENTS

Name	Company	Quantity
Ocular micrometer		10
Colorimeter	Thermo-Genesys	1
Digital balance	Simatzu (10mg-220gm)	1
Spectrophotometer	Systronics	1
Rotary Microtome(manual) with detachable blade		1
Vortex machine	Biolab	(1.5ft/2ft)1
Distilled water plant		1
Stand with long hand clamp		20
Test tube holder		30 pcs.
Fridge single door		1
Gas burner		02
Plastic made ice bearing box (25cm×21cm)		02

GLASS GOODS

Type	Company	Quantity
Reagent bottle	Borosil	500ml×40
		250ml×40
		1liter×10
Glass tube	Borosil	1 (cm dia)×10
		0.50 (cm dia) ×10
Inoculation needle		10 pcs
Measuring cylinder		500ml x 3
Measuring Cylinder		1Lit x 3
Slide	Blue Star	2 Packet

CHEMICALS

Fehling reagent A		250 x2
Fehling Reagent B		250 x2
Safranin	SRL	500ml x2
Xylene	SRL	500ml x 2
Molish Reagent		250 x2
Benedict quantitative		250 x2
Benedict qualitative reagent		250 x2
Barfoed Reagent		250 x2
Saliwanoff Reagent		250 x2
Oxalic acid		250 x2
Malic acid		250 x2
Citric acid		250 x2
Tartaric acid		250 x2
Calcium chloride solution		250 x2
Denige's Reagent		250 x2
KMNo4 Solution		250 x2
FeSo4 Solution		250 x2
Resorcinol		250 x2
Ag No3 Solution		250 x2
Biurate Reagent		250 x2
Millon's Reagent		250 x2
Amino Acid		250 x2
Fructose		250 x2
Starch		250 x2
5% Lead Acetate Solution		250 x2
Mayer's Reagent		250 x2
Dragendorff's Reagent		250 x2
Wagner's Reagent		250 x2

Marme's Reagent		250 x2
Diluted H2So4		250 x2
Dilute Hcl		250 x2
Dilute HNo3		250 x2
Ferric Chloride Solution		250 x2
Crystal violet		250ml x 3
Tissue Paper		4 roll
Blotting Paper		5 Roll
Forcep Bigger		2 Pcs.
Cotton Blue		250 ml. x 2

PERMANENT SLIDES

Name	Company	Qyantity
Calamites stem	Biosco	2
Lepidocarpon	Biosco	2
Cycas (T.S. of Leaflet)		2
Pinus Stem ((T.S., T.L.S., R.L.S.)		2
Gnetum (L. S. of Ovule)		
Mitosis		
Prophase	Biosco	2
Metaphase	Biosco	2
Anaphase	Biosco	2
Telophse	Biosco	2
Early seperation	Biosco	2
Late seperation	Biosco	2
Sticky bridge	Biosco	2
Meiosis		
Diplotene	Biosco	2
Diakinesis	Biosco	2
Metaphase I	Biosco	2
Anaphase I	Biosco	2
Metaphase II	Biosco	2
Anaphase II	Biosco	2
Telophase II	Biosco	2
Ring chromosome	Biosco	2
Chains	Biosco	2
Laggard	Biosco	2
Anaphase bridge	Biosco	2
Wood Anatomy		
Tectona (T.S., T.L.S., R.L.S.)	Biosco	2
Mangifera (T.S., T.L.S., R.L.S.)	Biosco	2

Azadirachta (T.S., T.L.S., R.L.S.)	Biosco	2
Pollen Grain		
Hibiscus pollen	Biosco	2
Tridax pollen	Biosco	2
Permanent Slides ALGAE		
<i>Anabaena</i>		2 Nos
<i>Oedogonium</i> (Macrandous, Nanandrous)		2 each
<i>Chara</i> with Globule and Nucule		2 Nos
<i>Vaucheria</i> (Antheridium and Oogonium)		2 each
<i>Ectocarpus</i> (Reproductive structure)		2 each
<i>Polysiphonia</i> (Cystocarp and Tetra sporangia)		2 each
Permanent Slides of Fungi		
<i>Rhizopus</i>		2 Nos
<i>Ascobolus</i>		2 Nos
<i>Agaricus</i>		2 Nos
<i>Polyporus</i>		2 Nos
Permant Slides of Bryophytes		
<i>Marchantia</i> (Thallus and Reproductive)		2 Nos each
<i>Anthoceros</i> (Sporophyte)		2 nos
<i>Funaria</i> (capsule)		2 nos.
Permanent Slides of Pteridophytes		
<i>Lycopodium</i> cone		2 nos
<i>Selaginella</i> (Strobilus, Rhizophore)		2 Nos
<i>Equisetum</i> cone		2 nos.
<i>Marselia</i> sporocarp		2 Nos
<i>Pteris</i> fertile pinnae		2 Nos

CLASS WORK MATERIALS (SPECIMEN)-For 40 students of each

ALGAE

- (1) *Anabaena* with akinetes.
- (2) *Volvox*
- (3) *Oedogonium*- Macrandous sp.
Oedogonium- Nanandrous sp.
Oedogonium with Oogonium
- (4) *Chara* with nucules and globules
- (5) *Vaucheria* with Oogonium and Antheridium
- (6) *Ectocarpus* with sporangia and gametangia
- (7) *Polysiphonia* with Spermatogonia, Cystocarp and Tetrasporangia

FUNGI

- (1) *Rhizopus* with sporangiophore and zygospore
- (2) *Penicillium* with conidium and ascus
- (3) *Ascobolus*
- (4) *Polyporus*
- (5) *Mucor* with sporangium and zygospore
- (6) *Agaricus*

BRYOPHYTES

- (1) *Riccia*
- (2) *Marchantia*
- (3) *Anthoceros* sporophyte

PTERIDOPHYTES

- (1) *Selaginella* with cone
- (2) *Equisetum* with cone
- (3) *Marsilea* with sporocarp

PLANT PATHOLOGY

- (1) Uredospore and teleutospore of Wheat
- (2) Brown spot of Rice
- (3) Tikka disease of Ground nut

PLANT ANATOMY

- (1) Stem of *Cucurbita*, *Dracaena*, *Bignonia*, *Tecoma*, *Boerhaavia*
- (2) Root of *Vanda*, *Tinospora*.

PHARMACOGNOSY

1. *Adhatoda vasica*- Leaf Powder
2. *Alstonia scholaris*- Bark Powder
3. *Strychnos nuxvomica*- Seed Powder
4. *Zingiber officinalis*- Rhizome Powder

PLANT PATHOLOGY

1. Black stem rust of wheat (Uredo and Teleuto spore) ----- 2 bottle
2. Brown spot of Rice----- 2 Bottles
3. Tikka disease of Ground nut----- 2 Bottles
