

**Hutatma Rajguru Mahavidyalay Rajgurunagar**  
**Department of Botany**  
**Requirement For AY 2019-20**

**Classworks material**

Sr.No.	Particular Names	Qty.	Amount
1	Algae-Spirogyra-Vegetative Reproductive-lateral conjugation,	10 Nos 10 Nos	
2	Bryophytes-Riccia -Vegetative Reproductive	10 Nos 10 Nos	
3	Pteridophytes-Nephrolepis-Stolon, Rachis, Sprophyll	10 Nos 10 Nos	
4	Gymnosperms-Cycus-Corolloid root, Rachis Leaflet, Male cone, Megasporophyll	10 Nos 10 Nos 10 Nos 10 Nos	
5	Dicot-Sunflower stem	10 Nos	
6	Dicot-Sunflower root	10 Nos	
7	Bignonia stem (Old)	10 Nos	
8	Agaricus	10 Nos	

**Class work material for T. Y. B. Sc.**

Sr. No.	Material	Quantity
1.	Chara thallus Vegetative	5 unit
2.	Chara reproductive – globule and nucule	5 unit
3.	Batrachospermum thallus	5 unit
4.	Batrachospermum reproductive (Carpogonia)	5 unit
5.	<i>Puccinia</i>	5 unit
6.	Puccinia (Rusts) Uredosorus and uredospores	5 unit
7.	Teleutosorus and teleutospores	5 unit
8.	Pycnidial cup and pycnidiospores	5 unit

9.	Aecidial cup and aecidiospores	5 unit
10	Marchantia thallus	5 unit
11	Marchantia gemma cup	5 unit
12	Marchantia antheridiophore	5 unit
13	Marchantia archegoniophore	5 unit
14	Marchantia Sporophyte	5 unit
15	Anthoceros Thallus	5 unit
16	Anthoceros Antheridia	5 unit
17	Anthoceros Archegona	5 unit
18	Anthoceros Sporophyte	5 unit
19	Polytrichum Thallus	5 unit
20	Polytrichum Antheridial head and antheridium	5 unit
21	Polytrichum Archegonial branch and archegonium	5 unit
22	Polytrichum Sporophyte	5 unit
23	Psilotum Vegetative	5 unit
24	Psilotum Reproductive	5 unit
25	Selaginella Vegetative	5 unit
26	Selaginella Reproductive	5 unit
27	Selaginella Sporophylls	5 unit
28	Marsilea Vegetative	5 unit
29	Marsilea Reproductive	5 unit
30	Marsilea SPOROCARP	5 unit
31	Bacterial- <i>Rhizobium</i> for legume crops	5 unit
32	Phosphate Solubilizers and Organic Fertilizers	5 unit
33	<i>Pinus</i> - Male Cone, Female Cone	5 unit
34	Impression	specimen
35	Coal ball	specimen
36	Petrifaction	specimen
37	Compression	specimen
38	<i>Lyginopteris</i>	specimen
39	<i>Pentoxylon</i>	specimen
40	<i>Nipaniophyllum</i>	specimen
41	<i>Lepidodendron</i>	specimen
42	Pith cast	specimen

**Hutatma Rajguru Mahavidyalaya, Rajgurunagar**

**Department of Botany**

**T.Y.B.Sc.**

**List of Instruments**

S.No.	Name of Instrument	Quantity
1.	Oximeter	1
2.	Secchi disc	1
3.	BDH Indicator (Universal Indicator )	1
4.	Glass electrode (mercury/calomel or silver/silver chloride)	1
5.	Electric Conductivity meter	1
6.	GPS	1
7.	Digital pH Meter	1
8.	Camera Lucida	1
9.	UV Spectrophotometer	1
10.	Suction Pump	1
11.	Suction Pump Flask	1
12.	Sieves (0.5mm, 1mm, 2mm)	2 each

**Hutatma Rajguru Mahavidyalay Rajgurunagar**

**Department of Botany**

**Requirement For AY 2018-19**

**Slides**

Sr.No	Name of Slide	Qty.	Amount
1	Rhizobium	2	
2	Azatobacter	2	
4	Annona Stem –T.S.	2	
6	Moringa Stem –T.S.	2	
7	Bignonia Stem – T.S.	2	
8	Dracaena Stem – T.S.	2	
9	Coleus Stem - T.S.	2	
10	Dicot embryo	2	

11	Monocot embryo	2	
----	----------------	---	--

### Charts

Sr.No	Name of Chart	Qty.	Amount
1	Fruits- Parts of typical fruit Classification of fruits Seeds I) simple II)Aggregate III)Multiple	1	
2	Air layring	1	
3	Approach grafting	1	
4	T-Buding	1	
5	Gnetum Part-I	1	
6	Psilotum	1	
8	Rubiaceae- Hamellia Patens	1	
9	Meliaceae-Azadirachta Indeica	1	
10	Myrtaceae-Callistemon lanceolatus	1	
11	Cucurbita stem- T.S.	1	
12	Hydrilla stem – T.S.	1	
13	Nerium Leaf –L.S.	1	
14	Eichhormia Root – T.S.	1	
15	Aloe vera Leaf- T.S.	1	
16	Plasmolysis- Isotonic,Hypertonic	1	
17	Aerobic, Anaerobic Respiration	1	
18	Dicot stem – Annona, Moringa	1	

Sr. No.	Name of Chart
1.	Magnoliaceae
2.	Capparidaceae
3.	Rhamnaceae
4.	Lamiaceae
5.	Orchidaceae
6.	Nyctaginaceae
7.	Cannaceae
8.	Life cycle of : <i>Chara</i>
9.	Life cycle of : <i>Puccinia</i>

10.	Life cycle of : <i>Marchantia</i>
11.	Life cycle of : <i>Anthoceros</i>
12.	Life cycle of : <i>Polytrichum</i>
13.	Life cycle of : <i>Psilotum</i>
14.	Life cycle of : <i>Selaginella</i>
15.	Life cycle of : <i>Marsilea</i>
16.	polytene chromosomes
17.	Study of Plant Tissues

### Instruments

Sr.No	Name of the instrument	Qty.	Amount
1	Screen for LCD	1 No	
2	Projector	01	
3	Speaker (JBL USB)	01	
4	Microscope (Binocular)	2	

### Glasswares

Sr.No.	Particular Names	Qty.	Amount
1	Burette (25ml)	20	
2	Vertical glass tube with one holed cork (1 Foot height & 1.5 inch Diameter )	2	
3	Measuring cylinder(Borosil) -		
	100ml	5	
	10ml	10	
	5 ml	10	
4	Beaker (Borosil)		
	1 Liter	5	
	500ml	10	
	250ml	15	
	200ml	15	
	100ml	15	
	Beaker (Plastik)		
	1 Liter	5	
	500ml	10	
5	Conical Flask(Borosil)- 150 ml	15	
	200 ml	15	

6	Sprit lamp (Steel)		10	
	Funnel (Borosil)-	7.5 cm.	10	
	Funnel (Borosil)-	3 Inch	10	
7	HardGlass		50 nos	
8	Capillaries		1 pkt	

### Chemicals

Sr.No.	Particular Names	Qty.	Amount
2	Mercury	250 gm	
14	Silver Nitrate	25 gm	
15	Lab Solvent	5 Lit	
	Teepol	5 Lit	

Sr.No.	Particular Names	Qty.	Amount
	Ph Paper	20 Pkt	
	Blotting paper	10 Pkt	
	Whatman Filter PaperNo-01	4 Pkt	

**Hutatma Rajguru Mahavidyalay Rajgurunagar**  
**Department of Zoology**  
**List of Quotation 2019-20**  
**Instrument's**

Sr.No	Name of Instrument	Quantity	Amount
	Colorimeter	1	
	Microtome	1	
	Computer	1	
	Printer	1	
	Cavity slide (3 hole)	36 nos	
	Specimen jar With Lid( Plastik- 1 Ft)	24 Nos	
	Specimen jar With Lid( Plastik- 2 Ft)	12 Nos	

Slides

Sr.No	Name of Slide	Quantity	Amount
1	Testis t.s.	1	
2	Ovary t.s	1	
3	Mouthparts of Cockroach	1	
4	Mouthparts of Honeybee	1	
5	Mouthparts of Housefly	1	
6	Mouthparts of Mosquito	1	
7	Mouthparts of Butterfly	1	
8	Mouthparts of Bed bug	1	
9	Drosophila Mutant	1	
10	White eye mutant	1	
11	Bar eye Mutant	1	
12	Curly Wing Mutant	1	
13	Vestigial Wing Mutant	1	
14	Bipinnaria Larva W.M.	1	
15	Chromosomal Spreading Picture	1	

16	Mollusca larva veliger's craft	1	
17	Zoca Larva W.M.	1	
18	Paramoecium Conjugation W.M.	1	
19	Nyototherus W.M.	1	
20	Arthropoda Phyllosoma Larva W.M.	1	

### Photograph

Sr.No	Name of Photograph	Quantity	Amount
	Human Genetic Traits		
	a) Ear lobes attached & Free	1	
	b) Rolling Tongue	1	
	c) Widow's Peak	1	
	d) Colour Blindness	1	
	e) Chandrika net	1	

### Specimen

Sr.No	Name of Specimen	Quantity	Amount
1	Euplectella	1	
2	Spongilla	1	
3	Chalina	1	

### Glasswares

Sr.No.	Particular Names	Qty.	Amount
--------	------------------	------	--------



1	Burette (25ml)	20	
2	Vertical glass tube with one holed cork (1 Foot height & 1.5 inch Diameter )		
3	Measuring cylinder(Borosil) -1 liter	1	
	500 ml	2	
	100ml	5	
	10ml	10	
	5 ml	10	
	1 ml	10	
4	Beaker (Borosil) 1 Liter	5	
	500ml	10	
	250ml	15	
	200ml	15	
	100ml	15	
	Beaker (Plastik) 1 Liter	5	
	500ml	10	
5	Conical Flask(Borosil)- 150 ml	15	
	200 ml	15	
6	Sprit lamp (Steel)	10	
	Funnel (Borosil)- 7.5 cm.	10	
	Funnel (Borosil)- 3 Inch	10	
7	Chromatography chamber with lid	12	

Sr.No.	Name of glasswares	Quantity	Amount
1	Test tubes	2 Pkt	
2	Test tubes stands	25	
3	Titration Stand's	25	
4	Burret	25	
5	Pipet's	25	
7	Petry dish with covering plates	50	

## Chemicals

Sr.No.	Name of chemicals	Quantity	Amount
1	Sodium citrate dehydrate	500gm	

2	Mnso <sub>4</sub> (Magnus sulphate )	1500gm	
3	NaOH	500gm	
4	KOH	500gm	
6	Na (Sodium) Aceatate	500gm	
7	Acetic Acid	1 lit.	
10	Na <sub>2</sub> Po <sub>4</sub>	500gm	
11	Glacical acetic acid	2 lit	
12	Chloroform	1 lit	
13	Picric Acid	100 gm	
14	Ammonium Chloride	500gm	
15	Copper Sulphate	500gm	
16	Potassium oxalate	500gm	
17	Benedict Solution	2 lit	
18	Proline (Prepaired)	100 ml	
19	Leucine (Prepaired)	100 ml	
20	Hydrochloric Acid	2 lit	
21	Conc. HNO <sub>3</sub> (Conc. Nitric acid)	2 lit	
22	Sodium Oxilate	500 gm	
23	Sulphuric acid	2 lit	
24	Iodine	50 gm	
25	Ethanol	5 lit	
26	Methanol	2 lit	
27	Benzene	1 lit	
28	Petrolium ether	1 lit	
29	Lab solvent	5 lit	
30	Potassium Dichromate	500 gm	
31	Potassium Permanganate	500 gm	
32	Hydrogen Peroxide	500 gm	
33	Ferrus Sulphate	500 gm	
34	Ferrous ammonium sulphate	500 gm	
35	Glycerin	1 lit	
36	Xylene	1 lit	
37	Wax	2 kg	
38	Hematoxylene	500 ml	
39	Mgso <sub>4</sub>	500 gm	
40	Blood antigines (Blood group Detection Kit )	2 pkt	
41	Phenolphthalein indicator	50 gr	
42	Methyl Orange Indicator	200 ml	

43	10./. Formalin	500 ml	
44	Haematoxyline	500 ml	
45	Calcium acetate formaline	500 ml	

### Stain

1	Leishman	50gr	
2	Eosin	50gr	
3	Cotton Blue	50gr	
4	Light green	50gr	
5	Ninhydrine	50gr	
6	Safranin	50gr	
7	AcetoCarmin powder	50gr	
8	Phenolphthaline Indicator	50 gr	

### Dissection Material

1	Earthworm	1000 Unit	
---	-----------	--------------	--

Sr.No.	Particular Names	Qty.	Amount
1	Ph Paper	20 Pkt	
2	Blotting paper	2 rim	
3	Whatman Filter PaperNo-01	4 Pkt	
4	Paper sheets for DNA Paper Model		
5	Straw		

**Hutatma Rajguru Mahavidyalay Rajgurunagar**  
**Department of Biology (Jr.College)**  
**List of Quotation 2019-20**

**Slide**

Sr.No	Name of slide	Quantity	Amount
1	T.S.of anothor of Hebiscus	2	
2	T.S.of fenugreek root	2	
3	T.S.of Fenugreek stem	2	
4	T.S. of Microsporum	2	
5	T.S. of overyBrassica	2	
6	T.S.of overy of hebiscus	2	
7	Mitosis	2	
8	Osciollotora	2	

**Chemicals**

1	45% Glacial acetic acid	500ml	
2	Blood antigines	2Pkt	
3	Hospital spirit	200 ml	
4	Hydrogen peroxide	200 ml	
5	Infra red (medical heat treatment apparatus with two extra bulbs	1 pair	
6	Iodine crystals	50 gm	
7	Universal Indicator	3 Lit	
8	Benedict reagent	3 Lit	
9	Conc. Nitric Acid	2 Lit	
10	Phenolphthalein indicator	50 gr	

**Specimens**

a	Petiole Developing in to Phyllode	1 pair	
b	Fully Developing Phyllode	1 Pair	
	Pistia (Floting Hydrophyte)	1 Pair	
2	Racemose inflorescene	1 pair	

	Clerodendron		
--	--------------	--	--

### Charts/Models

Sr.No.	Name of the Chart	Quantity	Amount
1	Model-camel(Fiber/wood)	1 No	
2	Anatomy of young monocot& dicot stem (monocot=maize etc & Dicot=Sunflower,Fenugreek)	1 No	
3	Emasclation(bagging&tagging)	1No	
4	Family Liliaceae Ex- <i>Allium cepa</i> (onion) Family: -Malvacea Ex. <i>Hibiscus rosa</i>	1 No	
5	Family- fabaceae Ex- <i>Pisum sativam</i> (Pea)	1 No	
6	a)Wind Pollination(Anemophily) Ex.Maize Plant b)Insect pollination(Entomophily) Ex.Salvia Flower	1 No	
7	Human blood groups-ABO system	1No	
8	Human female reproductive cycle	1 No	
9	Monography I)Micro-organisms Found in Water Sample II)Anthropods found in water sample		
10	L.S. of saliva flower showing bilipped corolla,stamen&carpel	1 No	
14	Recemose inflorescence:- Example-Caesalpinia cymose inflorescence Example-Dianthus,Jasmine	1 No	
17	Symmetry of flower	1 No	
18	Aerobic respiration in Germinating seeds by Ganongs respirometer		