

# **Dr. C.V. Raman University**

**Kargi Road Bilaspur (C.G.)**

**DEPARTMENT OF BOTANY**

**LIST OF EXPERIMENT (B.SC.)**

## **Sem. – I (BOTANY)**

1. To study and identify the given slide:
  - a. *Volvox*- Coenobium/ daughter colony.
  - b. *Oedogonium*- Macharandrus/ Nanandrous.
  - c. *Char*- Nuclule/Globule.
  - d. *Vaucheria*- Thallus.
  - e. *Ectocarpus*- Uniilocular/ Pleurilocular.
  - f. *Sargassum*- Blade/ Male and Female Conceptacle.
  - g. *Polysiphonia*- Trichoblast/ sprmatangia/ Tetrasporangia/ Cystocarp.
2. To study and identify the given material.
  - a. *Phytophthora*
  - b. *Mucor*
  - c. *Aspergillus*
  - d. *Peziza*
  - e. *Puccinia*
  - f. *Sarcospora*
  - g. *Colletorichum*
3. To study and identify the given specimen.
  - a. *Marchantia* Gamma Cup.
  - b. *Rhynia*.

- c. *Lycopodium*.
  - d. *Sellaginella*.
  - e. *Equisetum*.
  - f. *Marsilea*.
4. To prepare the temporary slide of *Anthoceros* capsule.
  5. To prepare the slide of given material.
    - a. *Marchantia* thallus.
    - b. *Polytrichum*.
    - c. *Riccia*.

**Counselor**

## **Sem. – II (BOTANY)**

1. To study the Prophase I stage in Mitosis cell division.
2. To study the Metaphase I stage in Mitosis cell division.
3. To study the Anaphase I stage in Mitosis cell division.
4. To study the different stages of Meiosis cell division.
5. To study the different types of cell organelles:
  - a. Golgi Bodies
  - b. Mitochondria
  - c. Endoplasmic Reticulum
  - d. Vacuoles
6. Explain the Monohybrid and Dihybrid Cross.

**Sem. – III (BOTANY)**

1. To prepare the temporary slide of given material:
  - a. *Pinus* Needle/ Pollen grains.
  - b. *Cycas* Corolloid root.
  - c. *Ephedra* Male/ Female Cone.
2. Anatomical study of given material:
  - a. *Cycas* old root.
  - b. *Cycas* young stem.
  - c. *Pinus* cone/ Needle.
3. To study the types of Inflorescence.
4. Family description of given plant:
  - a. Malvaceae.
  - b. Apeaceae.
  - c. Asteraceae.
  - d. Asclepiadaceae.
  - e. Solanaceae.
  - f. Rutaceae.
  - g. Fabaceae.
  - h. Lamiaceae.

**Sem. – IV (BOTANY)**

1. To study the structure of different types of angiospermic ovule.
2. To study the structure of different types of anther.
3. To prepare the temporary slide of T.S. of dicot root and study it.
4. To prepare the temporary slide of T.S. of dicot stem.
5. To prepare the temporary slide of V.S. of dicot leaf.
6. To prepare the temporary slide of T.S. of monocot stem.
7. To prepare the temporary slide of T.S. of monocot root.
8. To prepare the temporary slide of V.S. of monocot leaf.
9. To study the structure of stigma and style of :
  - a. *Hibiscus*
  - b. Citrus
  - c. *Oscimum.*

### **Sem. – V (BOTANY)**

1. Demonstration of osmosis by potato osmoscope.
2. To demonstrate diffusion/ plasmolysis/ imbibition.
3. To separate the leaf pigment by paper chromatography.
4. To demonstrate the rate of transpiration by Ganong's potometer.
5. To measurement the pass out the air bubbles by Wilmott's bubbler.
6. To measurement R.Q. by Ganong's respirometer.
7. To identify the presence of carbohydrate/ protein/ lipid from the give material.

### **Sem. – VI (BOTANY)**

1. To determine the relative frequency of different plant species in given grassland ecosystem.
2. To determine the relative density of different plant species in given grassland ecosystem.
3. To determine the relative abundance of different plant species in grassland ecosystem.
4. To prepare the slide of xerophytic, hydrophytic and mesophytic plant.
5. To determine the presence of carbonate in soil collected from local area.
6. To determine the presence of nitrate in soil collected from local area.