

B.Sc. Semester - 3 (CBCS) Examination
Oct/Nov - 2022 (OLD COURSE)
BOTANY(CORE)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Q-1 Answer the following questions as per instruction.

- (A) **Answer in very short(any three) :** **03**
1. What is mastigonemes in Algal flagella?
 2. What is colony in algae?
 3. Nostoc is prokaryotic or Eukaryotic?
 4. Swimming pools are frequently treated with?
 5. State the type of life cycle in Batrachospermum?
- (B) **Answer in brief (any one):** **04**
1. Write vegetative structure in fallen stars with diagram
 2. Describe Flagella of algal cell
- (C) **Answer in detail (any one):** **07**
1. Explain with diagram sex organs and fertilization in frog spawn algae.
 2. Describe filamentous forms of thallus structure in algae.

Q-2 Answer the following questions as per instruction.

- (A) **Answer in very short (any three):** **03**
1. What is septal swelling?
 2. Who give the name lomasome?
 3. **Fill in the blanks:** In *Aspergillus* vesicle forms many radially arranged tubular outgrowth called.....
 4. **True or False?** Male branch of *Aspergillus* is called pollinodium.
 5. Which two enzymes secreted by yeast for nutrition?
- (B) **Answer in brief (any one):** **04**
1. Explain: Industrial application of yeast in brewing industries.
 2. Describe diplobiontic life cycle in yeast
- (C) **Answer in detail (any one):** **07**
1. Describe asexual reproduction in *Eurotium*.
 2. Discuss Crozier formation in *Aspergillus*.

Q-3 Answer the following questions as per instruction.

- (A) **Answer in very short (any three):** **03**
1. Where are the archegonia situated in *Marchantia*?
 2. Name the spore producing part of the sporogonium.
 3. **True or False?** *Marchchantia* is a dioecious plant.
 4. Which bryophytes are used for lamp wicks?
 5. What is cladia in bryophytes?
- (B) **Answer in brief (any one):** **04**
1. Discuss protonema as a structure of reproduction
 2. Discuss Apophysis of funaria capsule.
- (C) **Answer in detail (any one):** **07**
1. Describe archegonial branch of *Marchantia* with diagram.
 2. Describe with diagram: Mature sex organs in *Funaria*.

Q-4. Answer the following questions as per instruction.

- (A) **Answer in very short (any three):** **03**
1. Give one word: In telome, the leaves become reduced to scaly or needle like shape.
 2. Name epiphytic species of small club moss plant?
 3. What is venation in *Adiantum* of the leaflet?
 4. What is heterospory?
 5. What is Haplostele?
- (B) **Answer in brief (any one):** **04**
1. Explain Actinostele and its types.
 2. Explain Sex organs of *Adiantum*.
- (C) **Answer in detail (any one):** **07**
1. Discuss internal structure of *Selaginella* stem.
 2. Describe in detail merits of telome theory.

Q-5. Answer the following questions as per instruction.

- (A) **Answer in very short (any three):** **03**
1. State the types of fruit in *Clitoria*?
 2. True or False: Fertilization is siphonogamous in pinus.
 3. Name a dicot family having Umbel inflorescence.
 4. Name the family having jaculators.
 5. Give scientific name of *Dandelion*?
- (B) **Answer in brief (any one):** **04**
1. Describe the structure of Female cone of *Pinus*.
 2. Refer the genus to respective family giving reasons: *Crinum*
- (C) **Answer in detail (any one):** **07**
1. Write floral character and floral formula of *Commelinaceae* family.
 2. Describe internal structure of *Pinus* Ovule with diagram.
