

B.Sc. Semester - 3 (CBCS) Examination
Nov/Dec. -2021 (OLD COURSE)
BOTANY(CORE)

Time: 2:30 Hours

Marks: 70

Instructions:

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

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- Q-1 Answer the following questions as per instruction.
- (A) Answer in very short(any three) : 03
1. Which algal cell having cup shaped chloroplast?
 2. What is the shape of colony of *Hydrodictyon*?
 3. In life cycle of which algae no meiosis and no gametic fusion?
 4. Why Cyanophages are introduced into water?
 5. State the type of life cycle in *Batrachospermum*?
- (B) Answer in brief (any one): 04
1. Write ultra-cell structure of Frog spawn with diagram.
 2. Describe Cell wall of algal cell
- (C) Answer in detail (any one): 07
1. Explain with diagram cell and thallus structure in fallen stars algae.
 2. Describe branched 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. Parenthosome is made up of?
 2. What is bud scar?
 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 species of *Aspergillus* is rich source of riboflavin?
- (B) Answer in brief (any one): 04
1. Explain: Industrial application of *Aspergillus* in food industries.
 2. Describe diplobiontic life cycle in yeast
- (C) Answer in detail (any one): 07
1. Describe sexual reproduction in *Eurotium*.
 2. Discuss vegetative structure of yeast cell.
- 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? *Funaria* is a dioecious plant.
 4. Which bryophytes are used for lamp wicks?
 5. Which cell closed the tip of the neck of archegonia in *Funaria*?
- (B) Answer in brief (any one): 04
1. Discuss Gemmae as a structure of reproduction
 2. Discuss Horticultural uses of Bryophytes.
- (C) Answer in detail (any one): 07
1. Describe antheridial branch of *Marchantia* with diagram.
 2. Describe with diagram: Capsule in *Funaria*.

- Q-4. Answer the following questions as per instruction.
- (A) Answer in very short (any three): 03
1. Give one word: Strobilus either bears a micro sporophylls or megasporophylls
 2. Name epiphytic species of small club moss plant?
 3. What does means by Protandrous prothalli?
 4. Which stage is considered an advance stage of heterospory?
 5. What is protostele?
- (B) Answer in brief (any one): 04
1. Explain origin of siphonostele.
 2. Explain mature prothallus of *Adiantum*.
- (C) Answer in detail (any one): 07
1. Discuss spore producing organs of *Sellaginella*
 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 *Ruellia*?
 2. True or False: Fertilization is siphonogamous in *Pinus*.
 3. Name a dicot family which usually has unisexual flowers.
 4. Name the family having jaculators.
 5. Which family is known as the carrot family?
- (B) Answer in brief (any one): 04
1. Describe the structure of male cone of *Pinus*.
 2. Refer the genus to respective family giving reasons: *Putranjiva*
- (C) Answer in detail (any one): 07
1. Write floral character and floral formula of *Verbenaceae* family.
 2. Describe internal structure of *Pinus* needle with diagram.
