

B.Sc. Semester - 3 (CBCS) Examination
Oct/Nov - 2022 [NEW COURSE]
Botany-B301(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:** **04**
1. Which is the main xanthophyll pigment of Phaeophyceae?
 2. What do you mean by dendroid form?
 3. By which means Nostoc reproduces vegetatively?
 4. Name reserved food material of Batrachospermum?
- (B) **Answer in brief (any one):** **03**
1. Write on Akinetes and endospore in fallen stars with diagram.
 2. Describe Nucleus of algal cell
- (C) **Answer in detail (any one):** **07**
1. Explain with diagram sex organs and fertilization in frog spawn algae.
 2. Describe coenobial and rhizopodial forms of thallus structure in algae.

Q-2 Answer the following questions as per instruction.

- (A) **Answer in very short:** **04**
1. Why saccharomyces name is applied to yeast?
 2. **Fill in the blanks:** Empty isthmus in *Aspergillus* is called.....
 3. **True or False?** Phialospores of *Aspergillus* are arranged in basipetal succession.
 4. Which species of *Aspergillus* is rich source of riboflavin?
- (B) **Answer in brief (any one):** **03**
1. Explain: Industrial application of *Aspergillus* in food industries.
 2. Describe the septal pore in fungal cell.
- (C) **Answer in detail (any one):** **07**
1. Describe sexual reproduction in *Eurotium*.
 2. Discuss vegetative reproduction in yeast cell.

Q-3 Answer the following questions as per instruction.

- (A) **Answer in very short** **04**
1. What is Innovations in bryophytes?
 2. **True or False?** Amphigastria is present in *Marchantia*.
 3. What is Autoicous?
 4. Which cell closed the tip of the neck of archegonia in *Funaria*?
- (B) **Answer in brief (any one):** **03**
1. Explain: Dehiscence of capsule in *Funaria*.
 2. Discuss medicinal uses of Bryophytes.
- (C) **Answer in detail (any one):** **07**
1. Describe antheridial branch of *Funaria* with diagram.
 2. Describe post fertilization changes in archigoniophore of *Marchantia*.

Q-4 Answer the following questions as per instruction.

- (A) **Answer in very short:** **04**
1. **Give one word:** Plant curl and ball like during dry season and become green and fresh when moisture is available.
 2. **Fill in the blank:** The development of sporangia in *Adiantum* is.....
 3. Which stage is considered an advance stage of heterospory?
 4. **Define:** Protostele
- (B) **Answer in brief (any one):** **03**
1. Explain the importance of heterospory.
 2. Explain mature sporangia of *maiden hair fern*
- (C) **Answer in detail (any one):** **07**
1. Discuss internal structure of strobilus in *Selaginella*
 2. Describe merits of telome theory.

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

- (A) **Answer in very short (any three):** **04**
1. Why *Pinus* is pyramidal shape?
 2. True or False: cremocarp fruit, umbel inflorescence in Fabaceae.
 3. Name the genus having clistogamous flower.
 4. Name the family of *Baheda* tree.
- (B) **Answer in brief (any one):** **03**
1. Describe the structure of male cone of *Pinus*.
 2. Refer the genus to respective family giving reasons: *Cuminum*
- (c) **Answer in detail (any one):** **07**
1. Write floral character and floral formula of *Acanthaceae* family.
 2. Describe internal structure of *Pinus* needle with diagram.
