



JAF-003-1013006

Second Year B. Sc. (Sem. III) (CBCS) Examination

Seat No. _____

November - 2019

Botany : 301

(B - Plant Diversity) (New Course)

Faculty Code : 003

Subject Code : 1013006

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 (a) Objective : 4
- (1) Write the function of Flagella.
 - (2) Write the name of palmelloid form of algae.
 - (3) Nostoc is _____ thallus structure.
 - (4) Write the name of pigments found in *Batrachospermum*.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Give the classification of *Nostoc*.
 - (2) Define dendroid form of algae.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Explain cell structure of *Nostoc*.
 - (2) Describe the asexual reproduction in *Batrachospermum*.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Describe the cell structure of algal cell.
 - (2) Write the harmful effect of algae.

- 2 (a) Objective : 4
- (1) Aspergillus is also called _____.
 - (2) Yeast is a _____ celled fungi.
 - (3) Write the function of Mitochondria.
 - (4) Fungal cell wall is made up of which substance ?
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Draw only labeled diagram of Fungal cell.
 - (2) Write the use of yeast in baking and brewing industry.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write vegetative structure of Aspergillus.
 - (2) Describe the vegetative reproduction in yeast.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Give the sexual reproduction in Aspergillus.
 - (2) Describe the sexual reproduction in yeast.

- 3 (a) Objective : 4
- (1) Which types of rhizoids are present in Marchantia ?
 - (2) How many peristomal teeth are produced in the capsule of Funaria ?
 - (3) Write the names of different parts of sporophyte.
 - (4) Funaria belongs to _____ class.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Explain: Gemma cup.
 - (2) Write classification of Marchantia.

- (c) Answer in detail : (any 1 out of 2) 3
- (1) Explain the external thallus structure of Marchantia.
 - (2) Describe the different types of vegetative reproduction in bryophytes.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Explain the alternation of generation life cycle of Funaria.
 - (2) Describe the sporophyte of Marchantia.
- 4 (a) Objective : 4
- (1) The most primitive types of stele is _____.
 - (2) Define: Heterospory.
 - (3) Which types of stele found in overlapping leaf gaps ?
 - (4) Who is proposed by Telome theory ?
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write the structure and function of ligule.
 - (2) Describe the structure of spore of Adiantum.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Explain the internal structure of selaginella roots.
 - (2) Describe the protostele.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Explain telome theory (with diagram).
 - (2) Describe the development of male and female gametophyte in selaginella.

5 (a) Objective :

(1) Pinus belongs to _____ class.

(2) Define: Autumn wood.

(3) Give one character of Gamopetalae.

(4) Give the scientific name of one plant that belongs to Acanthaceae family.

(b) Answer in brief : (any 1 out of 2)

(1) Draw the floral diagram of Euphorbiaceae family.

(2) Draw only labeled diagram of T.S of needle of pinus.

(c) Answer in detail : (any 1 out of 2)

(1) Give the external structure of pinus.

(2) Explain the six economics importance of Commelinaceae family.

(d) Write a note on : (any 1 out of 2)

(1) Explain the distinguishing characters and three plants scientific name of Apiaceae family.

(2) Describe the male and female cone of pinus.

4

2

3

5