



DCT-003-2013006

Seat No. _____

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

August - 2022

Botany : B-301

(Plant Diversity-2)

(New Course)

Faculty Code : 003

Subject Code : 2013006

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

[Total Marks : 70

- Instructions :** (1) Draw neat and labelled diagrams wherever necessary.
(2) Figure to the right indicate full marks for the question.
(3) Answer the following question. (write any 5 out of 10).

- 1 (A) Objective type question, 4
(1) Give the name of motile colonial form of algae.
(2) Give the name of the Nostoc species found in India.
(3) Give the of unbranched filamentous form of algae.
(4) Give the classification of Batrachospermum,
(B) Answer in Brief 2
Write the habitat of Batrachospermum.
(C) Answer in Detail 3
Write the palmelloid and dendroid forms of algae.
(D) Write note on 5
Describe various forms of thallus Organization in Algae.
- 2 (A) Objective type question. 4
(1) Write the names of pigments found in Nostoc Algae.
(2) Give the name of pseudo branch form of algae.
(3) Give the name of heterotrichous algae.
(4) Write the name of palmelloid form of algae.

- (B) Answer in Brief 2
Write down various forms of plastids found in various algae.
- (C) Answer in Detail 3
Write the mode of vegetative reproduction in Nostoc.
- (D) Write note on 5
Explain the harmful effect of algae.
- 3 (A) Objective type question. 4
(1) In the baking -industry _____ produced by yeast is useful.
(2) Ashby gossiping is used to produce vitamins _____
(3) The cell wall of fungi is made up of _____
(4) _____ types of flagella are seen in fungal motile cell.
- (B) Answer in Brief 2
describe the vegetative cell structure of Aspergillus.
- (C) Answer in Detail 3
Describe the flagella of fungal cell.
- (D) Write note on 5
Sexual reproduction in Aspergillus.
- 4 (A) Objective type question. 4
(1) Aspergillus, also called _____.
(2) Reserve food material in Aspergillus is in the form of _____.
(3) Yeast can convert sugar into _____.
(4) Yeast is a _____ called fungi.
- (B) Answer in Brief 2
Describe the use of yeast in baking and Brewing industry.
- (C) Answer in Detail 3
Describe the vegetative reproduction in yeast.
- (D) Write note on 5
Describe the industrial application of Yeast.
- 5 (A) Objective type question. 4
(1) In Anthoceros, cell of the thallus contain colonies of an algae belonging to the genus _____.
(2) How many peritoneal teeth are produced in the capsule of Funaria?
(3) Which kind of pattern for the arrangement of leaves found in Funaria?
(4) A moss is attached to the substratum by elongated cell called _____

- (B) Answer in Brief 2
Write a short note for dispersal mechanism in Funaria.
- (C) Answer in Detail 3
Medicinal use of bryophyta.
- (D) Write note on 5
Explain the life cycle of Anthoceros in brief.
- 6 (A) Objective type question. 4
(1) the lid of Funaria is known as _____
(2) The diploid zygote is the first cell of the sporophytic generation True/ False
(3) Anthoceros is commonly known as _____
(4) Reproduction by Gemma is a part of _____
- (B) Answer in Brief. 2
Give classification of Anthoceros.
- (C) Answer in Detail. 3
Explain vegetative reproduction in bryophytes (any three).
- (D) Write note on. 5
What do you understand of alternation of generation?
Explain it on the basis of life cycle of Funaria.
- 7 (A) Objective type question. 4
(1) How pteridophytes differ from bryophytes?
(2) The gametophytic phase in Adiantum is show by _____.
(3) A stele having xylem in radiating rows and phloem in patches is called _____.
(4) The term vascular cryptogams is used for which plant group?
- (B) Answer in Brief. 2
Give a brief idea about anatomy of Adiantum root.
- (C) Answer in Detail 3
Write note on protostele with diagram.
- (D) Write note on 5
Describe structure of sporangium and spore of Adiantum with diagram.
- 8 (A) Objective type question. 4
(1) The most primitive type of stele is _____.
(2) Adiantum gametophyte bears _____.
(3) Spore of Adiantum is _____ (diploid or haploid).
(4) Give the name of plant organs Adiantum plant possess.

- (B) Answer in Brief 2
Give systemic position of Adiantum plant.
- (C) Answer in Detail 3
Sketch and label the part of T.S. of stem of Adiantum
- (D) Write note on 5
Describe the various types of Steles found in pteridophytes you have studied.
- 9** (A) Objective type question. 4
(1) Non motile male gametes are formed in _____.
(2) Popular dry fruit 'Chilgoza' is produced by _____.
(3) In Pinus needle vascular bundles are _____.
(4) Write the floral formula of Commelinaceae family.
- (B) Answer in Brief. 2
Draw a labelled diagram of external structure of Pinus.
- (C) Answer in Detail. 3
Explain female cone of Pinus.
- (D) Write note on. 5
Write a note on reproduction in Pinus.
- 10** (A) Objective type question. 4
(1) The male cone of Pinus is modified on _____.
(2) Winged seeds are found in _____.
(3) The wing in Pinus seed originates from _____.
(4) Euphorbia pulcherrima belongs to _____ family.
- (B) Answer in Brief. 2
draw the floral diagram of Combretaceae family.
- (C) Answer in Detail. 3
Give classification and economic importance of Verbenaceae family.
- (D) Write note on 5
Write the distinguishing character and three plants scientific name of Commelinaceae family.
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