



DBJ-003-2015037

Seat No. _____

B. Sc. (Sem. V) (CBCS) (W.E.F. 2019) Examination

June - 2022

B - 501 : Botany

(Cryptogamic Botany and Plant Pathology)

(New Course)

Faculty Code: 003

Subject Code: 2015037

Time: **2.30** Hours]

[Total Marks: **70**

Instructions:

- (1) Attempt any five questions out of the following questions.
- (2) Answer with draw neat and labelled diagram wherever necessary.
- (3) Figures to the right indicate total marks for the questions.

- 1 (a) Answer the following objective type questions: **4**
 - (1) Name one species of *Coleochetae* in which heterotrichous habit is well represented.
 - (2) The globule in *Chara* consists of how many shield cells?
 - (3) In *Ectocarpus*, the zoospore produce in unilocular sporangia,.....thalli.
 - (3) Give the example of marine algae which is described in your syllabus.
- (b) Why *Chara* is known as stone worts? **2**
- (c) Draw a labelled diagram of vegetative thallus of *Caulerpa* (any two species) **3**
- (d) Describe sex organs of *Chara*. **5**
- 2 (a) Answer the following objective type questions. **4**
 - (1) The neck of archegonia in *Coleochetae* is known as:
 - (2) In *Coleochetae* the chloroplast shaped.
 - (3) Which type of sexual reproduction in *Caulerpa* algae?
 - (4) Mention true or false : *Ectocarpus* thallus is heterotrichous.

- (b) In *Ectocarpus* what is the role of diploid zoospore? 2
- (c) Explain asexual reproduction in *Coleochetae*. 3
- (d) Explain sexual reproduction in *Ectocarpus*. 5
- 3 (a) Answer the following objective type questions: 4
- (1) Fungus *Alternaria* belongs to class _____.
 (2) What is the nature of spores formed in ascus?
 (3) The number of Ascospore in the ascus of *Peziza* is _____.
 (4) Fruiting body of *Peziza* is called _____.
- (b) Give only name of any two disease caused by *Phytophthora*. 2
- (c) Give information about occurrence of *Peziza*. 3
- (d) Describe – Apothecium of *Peziza*. 5
- 4 (a) Answer the following objective type questions: 4
- (1) *Peziza* belongs to _____ class.
 (2) Early blight of potato is caused by _____.
 (3) Mention true or false: Ascospores are sexual spores.
 (4) Fungal spores produced at the tip of hyphae are called _____.
- (b) Give classification of *Peziza*. 2
- (c) Give the names and symptoms of the various disease of caused by *Phytophthora*. 3
- (d) Describe the morphology and reproduction in *Alternaria*. 5
- 5 (a) Answer the following objective type questions: 4
- (1) In *Sphagnum*, vegetative reproduction takes place by _____.
 (2) Name the two species of *Pellia* found in India.
 (3) In *Pellia* the neck of archegonium is made of _____ vertical row of cells.
 (4) What is the function of retort cells present in the axis of *Sphagnum*?
- (b) Write any two economic importance of *Sphagnum*. 2
- (c) Explain internal structure of *Pellia* thalus. 3
- (d) Explain internal structure of *Sphagnum* mature sporophyte. 5

- 6 (a) Answer the following objective type questions: 4
- (1) Spore of *Pellia* is _____
 - (2) Mention true or false: *Pellia* possess tuberculate rhizoids on its ventral surface.
 - (3) Name the bryophyte in which retort cells are found.
 - (4) *Pellia* belong to _____ class.
- (b) Give the systematic position of *Pellia*. 2
- (c) Draw a labelled diagram of *Sphagnum* axis. 3
- (d) Describe sex organs of *Pellia*. 5
- 7 (a) Answer the following objective type questions: 4
- (1) What type of development of sporangium is found in *Marsilea*?
 - (2) What comes out after the dehiscence of sporocarp of *Marsilea*?
 - (3) Archegonium of *Ophioglossum* has _____ neck canal cells.
 - (4) Mention true or false: Plant body of *Rhynia* consist of root, stem and leaves.
- (b) Explain the morphology of *Ophioglossum*. 2
- (c) Draw label diagram of internal structure of *Marsilea* root. 3
- (d) Explain – Internal structure of *Marsilea* spermocarp. 5
- 8 (a) Answer the following objective type questions: 4
- (1) What is the common name of *Ophioglossum*?
 - (2) Which is dominant phase in life cycle of *Marsilea*?
 - (3) In *Cingularia*, bracts were present _____ the sporangiophores.
 - (4) Mention true or false: *Marsilea* is generally occurs in dry regions.
- (b) Write the morphology of *Marsilea*. 2
- (c) Describe the *Ophioglossum* spike. 3
- (d) Describe the internal structure of *Rhynia* stem. 5

- 9 (a) Answer the following objective type questions: 4
- (1) Define – stripes.
 - (2) Write the causal organism of whip smut of sugar cane.
 - (3) The disease symptoms give a burnt appearance in:
 - (4) Write the causal organism of citrus canker.
- (b) Write controlling measures of Leaf curl of Papaya. 2
- (c) Write the symptoms of Red rot of sugarcane. 3
- (d) Describe the symptoms and control of Citrus canker. 5
- 10 (a) Answer the following objective type questions: 4
- (1) Mention true or false: Red rot of sugar cane is bacterial disease.
 - (2) Bordeaux mixture consist of:
 - (3) The causal organism of Tikka disease of ground nut
 - (4) Write the causal organism of Red rot of sugar cane.
- (b) Write controlling measures of Red rot of sugar cane. 2
- (c) Describe different methods of Plant disease control. 3
- (d) Describe the symptoms and control of Tikka disease of ground nut. 5
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