

B.Sc. Semester - 5 (Remedial) (CBCS) Examination

March/April-2024 (Old Course)

CRYPTOGAMIC BOTANY AND PLANT PATHOLOGY (CORE)

Time: 2:30 Hours

Marks: 70

Instructions:

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

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- Que-1 (A) Answer in very short (Any three). (03)
- 1) Which type of sporangia is produced only on the Sporophytic plant in *Ectocarpus*?
 - 2) **Fill in the blank:** The oogonium of *Chara* is also known as
 - 3) **True or False:** Trichogyne is not found in the discoid species of *Coleochaete*.
 - 4) What is physiological anisogamy?
 - 5) What is largest unicellular aquatic algae?
- Que-1 (B) Answer in brief (Any one). (04)
- 1) Describe fertile assimilators and fertilization in *Caulerpa*.
 - 2) Draw labelled diagram and discuss the structure of globule in *Chara*.
- Que-1 (C) Answer in details (Any one). (07)
- 1) Explain the methods of reproduction in *Coleochaete* and discuss the post fertilization changes.
 - 2) **Write notes on:** Evolution of sex in algae.
- Que-2 (A) Answer in very short (Any three). (03)
- 1) **True or False:** Conidia with transverse and longitudinal septa are called muriform or dictyospores in *Alternaria*.
 - 2) **Fill in the blank:** The number of ascospores in ascus of *Peziza* is
 - 3) Name sexually produced, nonmotile spores of exogenous origin in Fungi.
 - 4) Name the spores which is thick-walled resting cells formed intercalary on the hyphae in *Peziza* is.
 - 5) **Complete the statement:** Fungus *Alternaria* belongs to class
- Que-2 (B) Answer in brief (Any one). (04)
- 1) **Explain:** Structure of *Alternaria* spores.
 - 2) Discuss any four types of spores in Fungi.
- Que-2 (C) Answer in details (Any one). (07)
- 1) Describe the sexual reproduction in *Peziza*.
 - 2) **Explain:** Vegetative structure and asexual reproduction in *Alternaria*.
- Que-3 (A) Answer in very short (Any three). (03)
- 1) **True or False:** In *Sphagnum*, the sporangium is elevated by a special gametophytic structure the pseudopodium.
 - 2) **Fill in the blank:** In *Sphagnum*, vegetative propagation takes place by special branches known as
 - 3) What is location of Archegonium in *Pellia*?
 - 4) Name monoecious and protandrous species of *Pellia*.
 - 5) In *Sphagnum*, name the layer which separates operculum from rest of the capsule.
- Que-3 (B) Answer in brief (Any one). (04)
- 1) Describe the juvenile stage of *Sphagnum*.
 - 2) **Writes notes on:** Structure of mature sporophyte in *Pellia*.

- Que-3 (C) Answer in details (Any one). (07)
- 1) **Explain:** Structure of mature sporophyte of *Sphagnum*.
 - 2) Describe sex organs in *Pellia*.
- Que-4 (A) Answer in very short (Any three). (03)
- 1) What type of stele is observed in the T.S. of *Rhynia* stem?
 - 2) Of which plant parts is the fossil plant *Calamites* made up?
 - 3) How many bundle scars are visible in a leaf scar of *Lepidodendron*?
 - 4) **True or False:** There is no special mechanism for liberation of sporangia from the sporocarp in *Marsilea*.
 - 5) From where does the spike originate in *Ophioglossum*?
- Que-4 (B) Answer in brief (Any one). (04)
- 1) **Discuss:** Anatomy of *Rhynia* stem.
 - 2) **Draw well labelled diagram:** H.L.S. of *Marsilea* sporocarp.
- Que-4 (C) Answer in details (Any one). (07)
- 1) **Discuss:** Internal and External structure of spike in *Ophioglossum*.
 - 2) Explain the morphology of *Marsilea* with help of diagram.
- Que-5 (A) Answer in very short (Any three). (03)
- 1) **True or False:** Crop rotation helps in the control of soil borne diseases.
 - 2) Name the Fungus causing 'Whip smut of Sugarcane'.
 - 3) **Fill in the blank:** The ability of pathogen to induce a disease is called -
 - 4) Write three categories of systemic fungicides.
 - 5) Where do elongated dark reddish lesions develop in red rot of sugarcane?
- Que-5 (B) Answer in brief (Any one). (04)
- 1) Give symptoms and control of Tikka diseases of Groundnut.
 - 2) Mention some steps to control Fungal plant diseases.
- Que-5 (C) Answer in details (Any one). (07)
- 1) **Explain:** Leaf curl of Papaya according to following Points.
(i)Symptoms (ii)Causal organism (iii)Disease's control.
 - 2) Comment in detail on biological measures of plant diseases.
