

B.Sc. Semester - 5 (CBCS) Examination

Oct/Nov. - 2022(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.

Q-1(A) Answer in very short (Any Three): (03)

- (i) Which type of sporangia is produced only on the sporophytic plants of Ectocarpus?
- (ii) Fill in the blank: The oogonium of Chara is also known as _____.
- (iii) True or false: Trichogyne is not found in the discoid species of Coleochaete.
- (iv) What is physiological anisogamy?
- (v) What is largest unicellular aquatic alga?

Q-1(B) Answer in brief (Any One): (04)

- (i) Describe fertile assimilators and fertilization in Caulerpa.
- (ii) Draw labelled diagram and discuss the structure of globule in Chara.

Q-1(C) Answer in detail (Any One): (07)

- (i) Explain sexual reproduction in Choleochaete and discuss the post-fertilization changes.
- (ii) Write notes on: Evolution of sex in algae.

Q-2(A) Answer in very short (Any Three): (03)

- (i) True or False: Conidia with transverse and longitudinal septa are called muriform or dictyospores in Alternaria.
- (ii) Fill in the blank: The number of ascospores in the ascus of Peziza is _____.
- (iii) Name sexually produced, non-motile spores of exogenous origin in fungi.
- (iv) Name the spores which are thick walled resting cells formed intercalary on the hyphae in Peziza.
- (v) Complete the statement: Fungus Alternaria belongs to class _____.

Q-2(B) Answer in brief (Any One): (04)

- (i) Explain: Structure of Alternaria spores.
- (ii) Discuss any four types of spores in fungi.

Q-2(C) Answer in detail (Any One): (07)

- (i) Describe the sexual reproduction in Peziza.
- (ii) Explain: Vegetative structure and asexual reproduction in Alternaria.

Q-3(A) Answer in very short (Any Three): (03)

- (i) True or False: In Sphagnum, the sporogonium is elevated by a special gametophytic structure the pseudopodium.
- (ii) Fill in the blank: In Sphagnum, vegetative propagation take place by special branches known As _____.
- (iii) What is the location of Archegonium in Pellia?
- (iv) Name monoecious and protandrous species of Pellia.
- (v) In Spagnum, name the layer which separates operculum form rest of the capsule. _____.

- Q-3(B) Answer in brief (Any One): (04)
- (i) Describe the juvenile stage of Sphagnum.
 - (ii) Write notes on: Structure of mature sporophyte in Pellia.
- Q-3(C) Answer in detail (Any One): (07)
- (i) Explain: Structure of mature sporophyte of Sphagnum.
 - (ii) Describe: Sex organs in Pellia.
- Q-4(A) Answer in very short (Any Three): (03)
- (i) What type of stele is observed in the T.S. of Rhynia stem?
 - (ii) What parts of the fossil plant is Calamites?
 - (iii) How many bundle scar are visible in a leaf scar of Lepidodendron?
 - (iv) True or False: There is no special mechanism for liberation of sporangia from the sporocarp in Marsilea.
 - (v) From where does the spike originate in Ophioglossum?
- Q-4(B) Answer in brief (Any One): (04)
- (i) Discuss: Anatomy of Rhynia stem.
 - (ii) Draw well labelled diagram: H.L.S. of Marsilea sporocarp.
- Q-4(C) Answer in detail (Any One): (07)
- (i) Discuss: Internal and external structure of spike in Ophioglossum.
 - (ii) Explain: Marsilea morphology with diagram.
- Q-5(A) Answer in very short (Any Three): (03)
- (i) True or False: Crop rotation helps in the control of soil borne diseases.
 - (ii) Name the fungus causing 'Whip Smut' of Sugarcane.
 - (iii) Fill in the blank: The ability of pathogen to induces a disease is called _____.
 - (iv) Write three categories of systemic fungicides.
 - (v) Where elongated dark reddish lesions develop in red rot of Sugarcane?
- Q-5(B) Answer in brief (Any One): (04)
- (i) Give symptoms and control of Tikka diseases of Groundnut.
 - (ii) Mention some steps to control fungus plant disease.
- Q-5(C) Answer in detail (Any One): (07)
- (i) Explain: Leaf curl of Papaya according to following points:
 - 1. Symptoms 2. Casual organism 3. Disease control.
 - (ii) Comment on Biological measures of plant diseases.
