

B.Sc. Semester - 6 (CBCS) Examination
April/May-2022 (NEW COURSE)
Cryptogamic Botany & Gymno. (Core (New))

Time: 2:30 Hours**Marks: 70****Instructions:**

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

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- Q.1(A) Objective type questions. (04)
- (1) What is the name of male sex organ of chara?
 - (2) Which structure is produced due to post-fertilization changes in colochaete?
 - (3) Name the species of caulerpa is growing as epiphytes on the roots of mangrovevs.
 - (4) Which types of sporangia is produced only on the sporophytic plants in Ectocsrpus?
- Q.1(B) Answer in brief (Attempt any one) (03)
- (1) Describe the vegetative reproduction in chara.
 - (2) Explain cell structure of Ectocarpus.
- Q.1(C) Answer in details: (Attempt any one) (07)
- (1) Give in detail the organization of thallus and sexual reproduction in coleochaete.
 - (2) Give an account of the asexual reproduction in Ectocarpus.
- Q.2(A) Objective type questions. (04)
- (1) True or false: The fruiting body in penicillium is a cleistothecium.
 - (2) Fill in the blanks: Puccinia graminis is a _____ rust.
 - (3) Who discovered the phenomenon of heterothallism?
 - (4) The black spore stage in the life-cycle of puccinia of the primary host involves the production of spores black in colour. mention the name of the spore.
- Q.2(B) Answer in brief (Attempt any one) (03)
- (1) Give labeled diagrams of the T.S. leaf through aecidium.
 - (2) Write a note on asexual reproduction in penicillium.
- Q.2(C) Answer in details: (Attempt any one) (07)
- (1) Give an illustrated account of sexual reproduction in penicillium.
 - (2) Which part of life-cycle of puccinia graminis occurs on wheat? Describe with the help of diagrams.
- Q.3(A) Objective type questions. (04)
- (1) What is the function of Pseudoelaters in Anthoceros?
 - (2) What is the function of retort cells present in the axis of sphagnum?
 - (3) Name the central sterile tissue found in certain capsules of bryophytes.
 - (4) True or false: The flat plate-like structure formed by the germination of spore in sphagnum is known as primary protonema.

- Q.3(B) Answer in brief: (Attempt any one) (03)
- (1) Write a note on the leaves of sphagnum.
 - (2) Write a note on the Internal structure of Anthoceros thallus.
- Q.3(C) Answer in details: (Attempt any one) (07)
- (1) Explain internal structure of sphagnum sporophyte.
 - (2) Describe the structure of sex organs in Anthoceros.
- Q.4(A) Objective type questions. (04)
- (1) Fill in the blanks: In ophioglossum, the gametophyte is always _____
 - (2) What comes out after the dehiscence of sporocarp of marsilea?
 - (3) What is the characteristic of the nodal anatomy of Ephedra?
 - (4) How the collar is formed in the Gnetum at the base of the male strobilus?
- Q.4(B) Answer in brief: (Attempt any one) (03)
- (1) Draw the T.S. of Rhizome with labelled diagram in marsilea.
 - (2) Draw the T.S. of stem with labelled diagram in Gnetum.
- Q.4(C) Answer in details: (Attempt any one) (07)
- (1) Describe external and internal structure of ophioglossum spike.
 - (2) Describe the male and female strobilus of Ephedra.
- Q.5(A) Objective type questions. (04)
- (1) Name the form genus of the underground part of lapidodendrids.
 - (2) What is the scientific name of giant horsetails?
 - (3) What was the characteristic of the outer cortex of Lyginopteris Stem.
 - (4) Fill in the blaks: The vegetative structure of Cycadeoidea is similar to _____
- Q.5(B) Answer in brief: (Attempt any one) (03)
- (1) Describe briefly fructification of calamites.
 - (2) Describe the morphology of Cycadeoidea.
- Q.5 (C) Answer in details: (Attempt any one) (07)
- (1) Give the morphology and anatomy of lapidodendron.
 - (2) Describe morphology and anatomy of lyginopteris.
