

B.Sc. Semester - 6 (CBCS) Examination
May/June-2021 (NEW COURSE)
Cryptogamic Botany & Gymno.(Core)

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figures to the right indicate marks.
2. There are five questions in the question paper.
3. Answer any three of the following questions.

Q-1(A) Answer in details: (Attempt any one) (07)

- 1) Give an illustrated account of the male reproductive organs of *Chara*.
- 2) Write a detailed account of the evolution of sex in algae.

Q-1(B) Answer in brief: (Attempt any one) (03)

- 1) Explain: Spermatocarp of *Coleochaete*.
- 2) Write note on: Plurilocular sporangia in *Ectocarpus*.

Q-1(C) Answer in very short: (04)

- 1) What is the name of female sex organ of *Chara*?
- 2) Give one example of alga which shows physiological anisogamy.
- 3) What type of the thallus in *Caulerpa*?
- 4) Name one species of *Coleochaete* in which heterotrichous habit is well represented.

Q-2(A) Answer in details: (Attempt any one) (07)

- 1) Give an account of the Uredospore stage with diagram in *Puccinia*.
- 2) Describe Physiological heterothallism in Fungi.

Q-2(B) Answer in brief: (Attempt any one) (03)

- 1) Write short notes Zoospores, Oidia and aplanospores in fungi.
- 2) Describe the process of asexual reproduction in *Penicillium*.

Q-2(C) Answer in very short: (04)

- 1) Name two genera to whom perfect stages of *Penicillium* has been assigned.
- 2) True or False: Teleutospores are unicellular spores.
- 3) Which term is used for morphologically different heterothallic species?
- 4) Who caused yellow rust of Wheat?

Q-3(A) Answer in details: (Attempt any one) (07)

- 1) Give an account of internal structure of *Sphagnum* sporophyte.
- 2) Give an illustrated Vegetative reproduction in *Anthoceros*.

Q-3(B) Answer in brief: (Attempt any one) (03)

- 1) Write a short note: Mature sex organs of *Anthoceros*.
- 2) Describe the external and internal features of the leaves of *Sphagnum*.

Q-3(C) Answer in very short: (04)

- 1) **True or false:** In *Anthoceros*, the antheridia develop endogenously.
- 2) **Fill up the blank:** The nurse cells are present in the sporogonium of.....
- 3) In which species of *Sphagnum*, retort cells are present in the main axis?
- 4) Name two liverworts in which seta are altogether absent.

Q-4(A) Answer in details: (Attempt any one) (07)

- 1) Describe the Male and Female strobilus of *Gnetum*.
- 2) Describe the structure of *Marsilea* sporocarp with the help of suitable diagrams.

Q-4(B) Answer in brief: (Attempt any one) (03)

- 1) Write a short note on Morphology of *Ephedra*.
- 2) Describe the anatomy of rhizome of *Ophioglossum*.

Q-4(C) Answer in very short: (04)

- 1) What is the nature of development of sporangium in *Ophioglossum*?
- 2) What are the characteristics of the nodal anatomy of *Ephedra*?
- 3) Fill in the blanks: The type of polyembryony present in *Ephedra* is.....
- 4) How the collar is formed in the *Gnetum* at the base of the male strobilus?

Q-5(A) Answer in details: (any one)

(07)

- 1) What are fossils? Explain Petrification's and Compactions
- 2) Describe morphology and anatomy of *Rhynia*

Q-5(B) Answer in brief: (any one)

(03)

- 1) Write short note on: Morphology of *Cordites*.
- 2) Describe with diagram: *Cycadeoidea*

Q-5(C) Answer in very short:

(04)

- 1) When did the *Lepidodendron* go extinct?
- 2) Where are *Calamites* found?
- 3) True or False? Six steles have also been observed by Sahni in *Pentoxylae*.
- 4) The generic name *calamites* should be applied to?
