

## M.Sc. Sem.-1 Examination

402

Botany

March 2022

Time : 2-00 Hours]

[Max. Marks : 50

Instructions : All questions in Section-I carry equal marks.

Attempt any Three questions in Section-I.

Questions I in Section-II is COMPULSORY.

## Section-I

- Q-1 A. Discuss general classification of Bryophytes given by Rothmaler and Proskauer. [7]
- Q-1 B. Explain economic, ecological and evolutionary significance of Bryophytes. [7]
- Q-2 A. Write a short note on vegetative and sexual reproduction in Bryophytes. [7]
- Q-2 B. Explain general characteristics of Marchantiales and Funariales. [7]
- Q-3 A. Explain general characters of Psilophyta and Pterophyta in details. [7]
- Q-3 B. Describe in Brief: Origin and development of Heterospory. [7]
- Q-4 A. Write a short note on Telome theory. [7]
- Q-4 B. Explain origin of Seed habit in detail. [7]
- Q-5 A. Discuss in details about origin and evolution of female gametophyte and embryo. [7]
- Q-5 B. Give Brief description of Pteridospermales and Cordaitales. [7]
- Q-6 A. Define fossilization and describe various types of fossils. [7]
- Q-6 B. Discuss in detail about economic importance of Gymnosperms. [7]
- Q-7 A. Give brief description about theories of evolution given by Darwin and Lamarck. [7]
- Q-7 B. Discuss in brief about Isolating mechanism with examples. [7]
- Q-8 A. Explain Sources of Variation in detail. [7]
- Q-8 B. Discuss coevolution of plants and fungal parasites. [7]

## Section-II

- Q-9. MCQs [8]
1. What is wrong in respect to bryophytes?
    - a) Water is essential for fertilization
    - b) Presence of archegonia
    - c) Presence of ciliated sperms
    - d) Presence of autotrophic independent sporophyte
  2. Which of the following plant belong to Hepaticopsida?

- a) Funaria
  - b) Polytrichum
  - c) Porella
  - d) Anthoceros
3. Pteridophytes are differ from Mosses in possessing
- a) Archegonia structure
  - b) Vascular system
  - c) Flagellate antherozoids
  - d) Leaf like structure
4. Which of the following is heterosporous pteridophytes?
- a) Adiantum
  - b) Equisetum
  - c) Psilotum
  - d) Salvinia
5. Jeffreys view was proposed for evolution of which type of stele?
- a) Haplostele
  - b) Protostele
  - c) Eustele
  - d) Siphonostele
6. Sclerotesta in ovule integument is found as a \_\_\_\_\_.
- a) Outer fleshy layer
  - b) Middle stony layer
  - c) Inner layer
  - d) Middle fleshy layer
7. Which of the following is as example of Homologous Characters?
- a) Wings of Insects and Wings of Birds
  - b) Eyes of Octopus and Eyes of Mammals
  - c) Sweet Potato and Potato
  - d) Human's Hand and Cheetah's Leg
8. According to Neo-Darwinism, natural selection operates through
- a) Fighting between organisms
  - b) Variations
  - c) Differential reproduction
  - d) Killing weaker organism
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