K16U 1208

Reg. No. : .....

Name : .....

II Semester B.Sc. Degree (CCSS-Reg./Supple./Improv.) Examination, May 2016

COMPLEMENTARY COURSE IN BOTANY/PLANT SCIENCE

2C02 BOT/PLS – Archaegoniatae, Palaeobotany and Reproduction in Angiosperms

(2014 Admn. Onwards)

Time : 3 Hours Total marks : 32

SECTION – A

Answer **all**.

1. Protective covering for the sporophyte in bryophytes
   a) Foot b) Seta c) Calyptra d) Operculum
2. Blue green algae occur as endophytes in
   a) *Selaginella* b) *Cycas* c) *Funaria* d) *Riccia*
3. Which of these is not an agent for pollination ?
   a) Water b) Insect c) Wind d) Soil
4. Of these, which one is not a fossil ?
   a) Cast b) Compression c) Petrefaction d) Putrification
5. Fifty microspore mother cells will yield
   a) 200 microspores b) 250 microspores
   c) 100 microspores d) 150 microspores **(5×1=5)**

SECTION – B

Answer **any four**.

6. Differentiate between cellular and nuclear endosperm.
7. Explain the different methods of vegetative reproduction in Bryophytes.
8. Discuss the flower as a modified shoot.

P.T.O.

9. What is meant by geological time scale ?
10. Write notes on rhizophore.
11. Draw a neat labelled diagram of the anatropous ovule. **(4×2=8)**

SECTION – C

Answer **any three**.

12. Write on the morphology of *Lepidodendron* giving suitable diagrams.
13. Illustrate and explain the anatomy of *Riccia* thallus.
14. Explain the morphology of the *Selaginella* plant.
15. Explain the different types of fossils and how they are formed.
16. The nucellar cell of an ovule has chromosome number 10. What would be the chromosome number of the following.
    a) egg
    b) zygote
    c) synergids
    d) antipodals
    e) endosperm
    f) secondary nucleus. **(3×3=9)**

SECTION – D

Answer **any two**.

17. Discuss the alternation of generation in the life cycle of *Funaria* and explain how its gametophyte differs from that of *Riccia*.
18. Give the morphology of the sporophyte in Cycas. Explain its life cycle.
19. Explain megasporogenesis and development of the female gametophyte in angiosperms. Give suitable diagrams.
20. Describe the process of reproduction is *Selaginella*. Comment on heterospory and seed habit. **(2×5=10)**

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