

Master's Degree Examination-November 2018

Semester - I

Class : I PG
Major : BOTANY

Time : 3 Hours
Max. marks : 60

17MBOC03 Plant Biodiversity - II
(Pteridophytes, Gymnosperms & Paleobotany)

Part A

(10 x 1/2 = 5)

Choose the correct answer

1. Heterospory originated in CO2 K2
 - a) Algae
 - b) Fungi
 - c) Bryophytes
 - d) Pteridophyte

2. Most primitive type of stele found in pteridophyte is CO2 K1
 - a) Proto
 - b) Dictyo
 - c) Soleno
 - d) Plecto

3. Trabeculae of Selaginella are modified CO3 K1
 - a) Endodermal cells
 - b) Pericycle cells
 - c) Cortical cells
 - d) Pericycle & Endodermal cells

4. Horse tail is named for CO1 K2
 - a) Adiantum
 - b) Equisetum
 - c) Marselia
 - d) Cycas

5. Living Fossil is CO2 K4
 - a) Cycas
 - b) Gnetum
 - c) Pinus
 - d) Gingko

6. Mormon tea, a aromatic beverage is obtained from CO4 K1
 - a) Ephedra
 - b) Pinus
 - c) Gnetum
 - d) Cycas

7. Fossils secrete a heavy coat of calcium carbonate around them. It is known as CO3 K2
 - a) Petrification
 - b) Compressions
 - c) Calcifications
 - d) Encrustations

8. Example for fossil fuel is CO4 K2
 - a) Wood
 - b) Gas
 - c) Coal
 - d) Kerosene

9. Lyginopteris is a part of CO3 K2
 - a) Stem
 - b) Root
 - c) Leaf
 - d) Seed

10. In which one of the following, does gymnosperm resemble angiosperm CO3 K1
 - a) Presence of ovule
 - b) Presence of vessels
 - c) Mode of fertilization
 - d) Presence of naked seed

Part B (5x4 = 20)

Answer the following

Answer should not exceed 200 words or one page

11. a) Discuss about Heterospory CO2 K3
(or)
b) Discuss about the classification of Pteridophytes by Rhimers CO1 K2
12. a) Draw L.S. of cone of *Selaginella* with notes CO3 K4
(or)
b) Draw T.S. of stem of *Equisetum* with notes CO3 K4
13. a) Give the informations about fossil pollen grain CO4 K6
(or)
b) Give the critical description Lepidocarpon CO4 K4
14. a) Illustrate the structure of *Gnetum* L.S of ovule CO3 K3
(or)
b) Describe Podocarpus male cone CO3 K3
15. a) Evaluate the Sporne's classification of Gymnosperms. CO1 K5
(or)
b) Record the morphological features of Gingko CO3 K1

Part C

(5x7 = 35)

Answer the following

Answer should not exceed 800 words or four pages

16. a) Explain in details about stelar evolution in pteridophytes. CO2 K2
(or)
b) Compare and contrast between Bryophytes and Pteridophytes. CO1 K4
17. a) Discuss the vasculature in Pteridophytes. CO4 K2
(or)
b) Illustrate the structure and reproduction in *Osmunda* CO3 K3
18. a) Evaluate the Geological Time Scale. CO4 K1
(or)
b) List out the methods of studying Fossils CO4 K1
19. a) Explain the process of reproduction in *Araucaria* CO3 K2
(or)
b) Explain the morphological and anatomical structures of *Ephedra*. CO3 K2
20. a) Collect the morphological details of male and female cone of *Taxus* CO3 K6
(or)
b) Collect the details about the Affinities of Gymnosperms with Angiosperms CO2 K6
