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Register Number:

6400

Name of the Candidate:

M.Sc. DEGREE EXAMINATION December 2014

(BOTANY)

(FIRST YEAR)

130: PTERIDOLOGY, GYMNOSPERMS AND PALEOBOTANY

Time: Three hours

Maximum: 100 marks

SECTION-A

Answer ALL questions

(8 × 3 = 24)

Each answer not to exceed 50 words

Explain the following:

1. Rhizophore of *Selaginella*
2. Leptosporangiate vs eusporangiate
3. Transfusion tissue
4. Megasporophyll of *Cycas*
5. *Welwitschia*
6. *Williamsoniella*
7. Carboniferous period
8. Telome theory

SECTION-B

Answer ALL questions

(6 × 6 = 36)

Each answer not to exceed 300 words

9. a) Compare the sporophytes of *Equisetum* with that of *Isoetes*.
(OR)
b) Describe the stellar anatomy of *Selaginella*.
10. a) Describe the life history of *Psilotum*.
(OR)
b) Distinguish between homospory and heterospory.

11. a) What are the resemblances and differences between the floral organs of an Angiosperm and *Pinus*?
(OR)
b) Give an account of the development of female gametophyte in *Cycas*.
12. a) Give a general account of Bennettitales.
(OR)
b) Write salient features of Pentoxylon.
13. a) Write a note on fossilization processes.
(OR)
b) Mention the methods of determine the geological age of fossils.
14. a) Describe the gametophytic generations of *Gnetum*.
(OR)
b) Give a general account of *Horneophyton*.

SECTION-C**Answer ALL questions****(2 × 20 = 40)****Each answer not to exceed 1200 words**

15. a) Give an account of the general characters and Reimers classification of Pteridophytes.
(OR)
b) Discuss the stellar theory in pteridophytes.
16. a) Give an account of the general characters and Sporne classification of Gymnosperms.
(OR)
b) Explain with examples about economic importance of Gymnosperms.

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