**MAY 2012** **P/ID 40223/PBTC**

Time : Three hours Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 50 words.

Write short notes on :

1. Corolloid root.
2. Gnetum ula.
3. Phloem in Gymnosperms.
4. Water ferns.
5. Leaf traces.
6. Microsporophyll.
7. Gonduwana.
8. Eucordaites.
9. Pentoxylon.
10. Mesarch.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 250 words.

11. (a) Give the salient features of Pteridospermales.

Or

(b) Write notes on the economic importance of Gymnosperms.

12. (a) Describe the structure of male strobilus of cycas.

Or

(b) Discuss the salient features of the order coniferales.

13. (a) Why Ginkgo is said to be a living fossil?

Or

(b) Discuss the habit and habitat of Taxus.

14. (a) Give the contributions of Prof. Bribal Sahni to paleobotary.

Or

(b) Comment on the importance of fossils for fuel purpose.

15. (a) Describe the structure of sporophyte of Rhynia.

Or

(b) Explain the external structure of sphenophyllum.

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

16. (a) Give an account of the classification of Gymnosperms as proposed by sporne and add a note on the salient features of the orders.

Or

(b) Describe the distinguishing features of Gymnosperms and also comment briefly on their affinities.

17. (a) Describe the female gametophyte of cycas and comment on various changes brought about after fertilization.

Or

(b) Give a detailed account of the structure of Ovule, mode of pollination and fertilization in Taxus.

18. (a) Write notes on :

(i) Economic importance of fossils.

(ii) Calamites.

Or

(b) Write an essay on the origin and evolution of seed habit.

19. (a) Discuss the general morphology of Calomostachys.

Or

(b) Give an account on Glossopteris flora.

20. (a) Give an illustrated account of the external characters of Lyginopteris.

Or

(b) Describe the structure of reproductive organs in Pentoxylan.

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