

(6 pages)

Reg. No. :

Code No. : 7172

Sub. Code : PBOM 21

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL, 2019.

Second Semester

Botany – Core

PTERIDOPHYTES, GYMNOSPERMS AND
PALEOBOTANY

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Protonema is

- (a) Haploid and is found in mosses
- (b) Diploid and is found in liverworts
- (c) Diploid and is found in pteridophyte
- (d) Haploid and is found in pteridophyte

2. Rhynia was dominant during which era

- (a) Carboniferous
- (b) Permian
- (c) Devonian
- (d) Silurian

3. Linear sori and false indusium are characteristics of

- (a) Dryopteris
- (b) Pteris
- (c) Polypodium
- (d) Adiantum

4. Microspores of Massulae in Azolla are found in

- (a) Inducium
- (b) Antheridium
- (c) Sporangium
- (d) Archegonium

5. Meristele of Fern is

- (a) Collateral
- (b) Rapid
- (c) Amphicribal
- (d) Leptocentric

6. Which of the following has medicinal value?

- (a) Lycopodium
- (b) Equisetum
- (c) Adiantum
- (d) Azolla

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7. Coralloid roots are the characteristics of
- (a) Pinus (b) Ginkgo
 (c) Cycas (d) Taxus
8. Which one of the following is a living fossil?
- (a) Pinus roxburghii
 (b) Ginkgo biloba
 (c) Gnetum Contractum
 (d) Thuja Occidentalis
9. "Father of Indian Palaeobotany"
- (a) Birbal Sahni (b) Mohamed Sahni
 (c) Akabar Sahni (d) Shajahan Sahni
10. Which one of the method is not fossil type?
- (a) Impression
 (b) Petrifications
 (c) Compression
 (d) Petri plate method

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Write brief note on gametophyte and sporophyte of the Lapidodendron.
 Or
 (b) Give an brief account on Sphenophyllum.
12. (a) Explain about the morphological structure of Isoetes.
 Or
 (b) Comment on the evolution of gametophytes is Angiopteris.
13. (a) Give an account on the economic importances of Pteridophytes.
 Or
 (b) Write brief note on Heterospory and seed habit in Pteridophytes.
14. (a) List out the characteristic features of Gymnosperms.
 Or
 (b) Write about the morphology and phylogeny of Cycas.

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15. (a) Enlist the techniques for Palaeobotanical studies.

Or

- (b) Comment on the casts and coal balls.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Outline the classification of Pteridophytes, you have studied.

Or

- (b) Describe the gametophytes and sporophytes of Calamites.

17. (a) Write elaborate account on morphology and reproduction methods of Equisetum.

Or

- (b) Discuss about the developmental stages of sporocarp in Massilea.

18. (a) Give an illustrated account on stelar evolution in Pteridophytes.

Or

- (b) Describe the evolution of Sori.

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19. (a) Give an general account on William Sonia.

Or

- (b) Describe the morphology and reproduction methods of Araucaria.

20. (a) Write a general account on geological time scale.

Or

- (b) Write an essay on role of fossil in oil exploration.

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