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# MAR IVANIOS COLLEGE (AUTONOMOUS) THIRUVANANTHAPURAM

Reg. No. :	Name :
Third Semester Career Related B.Sc. 1	Degree Examination, November 2016
First Degree Program Core Course – III: (for Bo	
AUBB341: Bryology, Pteridology	, Gymnosperms & Paleobotany
Time: 3 Hours	Max. Marks : <b>80</b>
SECTIO	$\mathbf{ON} - \mathbf{A}$

Answer ALL the following each in a word or as short notes.

- 1. Elater.
- 2. Coralloid root.
- 3. Areolae.
- 4. Name a fossil gymnosperm.
- 5. Peat moss.
- 6. Ligule.
- 7. Coal balls.
- 8. Protonema.
- 9. Glossopodium.
- 10. Club moss.

 $(10 \times 1 = 10 \text{ Marks})$ 

### SECTION - B

Answer any EIGHT questions, not exceeding one paragraph.

- 11. Describe the stelar variation in *Lycopodium*.
- 12. Describe the morphology of gametophyte of *Marchantia*.
- 13. Describe the vegetative reproduction in *Polytrichum*.

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- 14. Write notes on peristome teeth.
- 15. Give a brief account on the classification of bryophytes.
- 16. What is alternation of generations? Add note on diplontic life cycle.
- 17. Give any four xerophytic adaptations of *Cycas* leaflet.
- 18. Differentiate between apospory and apogamy.
- 19. Mention the similarities between *Gnetum* and dicots.
- 20. What is cleavage polyembryony? Cite examples.
- 21. Comment on petrifaction.
- 22. Define heterospory. Cite an example.

 $(8 \times 2 = 16 \text{ Marks})$ 

## SECTION - C

Short essay type: Answer any SIX questions.

- 23. Enumerate the similarities of pteridophytes with gymnosperms.
- 24. With labelled diagrams, explain the structure of sporocarp of Marsilea.
- 25. Describe the capsule of *Polytrichum* with suitable diagram.
- 26. Describe the structure of *Lepidocarpon* with a diagram.
- 27. Give a brief account on geological time scale.
- 28. Discuss the morphological nature of rhizophore of Selaginella.
- 29. Enumerate the economic importance of pteridophytes.
- 30. Describe the structure of synangium of *Psilotum*.
- 31. Draw a labelled diagram of T.S. of *Cycas* rachis and describe the internal features.

 $(6 \times 4 = 24 \text{ Marks})$ 

#### SECTION - D

Long essay type: Answer any TWO questions.

- 32. With labelled diagrams, describe the life cycle of *Riccia*.
- 33. Discuss the stelar evolution in pteridophytes.
- 34. With suitable illustrations, describe the sexual reproduction of *Equisetum*.
- 35. Describe the life cycle of *Pinus* with diagrams.

 $(2 \times 15 = 30 \text{ Marks})$