



Register Number:  
DATE: 30-10-2019

St. Joseph's College (Autonomous), Bangalore.  
SEMESTER EXAMINATION - OCTOBER 2019  
B.Sc. Botany: III SEMESTER  
BO-318: Pteridophytes, Gymnosperms and Paleobotany

Time: 2 ½ Hours

Max. Marks.70  
10 x 2=20

(A) Define/Explain briefly any TEN (10) of the following

- 1) Index fossils
- 2) Ligule
- 3) *Glossopteris*
- 4) Heterospory
- 5) Stalagmites
- 6) Foliar spur
- 7) Winged pollen
- 8) Pollination drop mechanism
- 9) Carinal canals
- 10) Carboniferous period
- 11) Birbal Sahni
- 12) *Pentoxylon*

(B) Write short notes on any FIVE (5) of the following

5 x 6 =30

- 13) General characters of Gymnosperms (any ten)
- 14) Ovule structure in *Pinus* (L.S)
- 15) *Lepidodendron*
- 16) Morphology of any two sporophytes in *Lycopodium*
- 17) Types of fossils (any six)
- 18) Economic importance of pteridophytes
- 19) *Rhynia*

(C) Answer Any TWO (2) of the following in detail

2 x 10 = 20

- 19) Morphology of sporophyte in *Equisetum* with a note on the anatomy of its stem.
- 20) Techniques of studying fossils
- 21) Development of male and female gametophytes in *Gnetum*