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Register Number:

DATE: 12-04-2017

**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27**

**M.Sc. BOTANY – II SEMESTER**

**SEMESTER EXAMINATION– APRIL 2017**

**BO 8215 - Diversity of Pteridophytes and Gymnosperms**

**Time: 2 ½ hrs Max.Marks-70**

**This question paper has ONE printed page and THREE parts**

**Instructions: Draw diagrams and write examples wherever necessary**

**A. Explain /define any TEN of the following in one or two sentences 10x2=20**

1. Carinal canal
2. Prothallial cells
3. Mixed sorus
4. Girdle traces
5. Dictyostele
6. Epimatium
7. Velum
8. Secondary transfusion tissue

9. Ulodendron

10. Dimorphic shoot

11**.** Cingularia

12**.** Xylotomy

**B. Write Critical notes on any FIVE of the following 5x6=30**

13. Characteristic features of Ophioglossales and Psilophytales

14. Steps involved in telome theory

15. Experimental work in gymnosperms

16. *Bennettites*

17. Ovule of *Taxus*

18. a) Comparative account of *Welwitschia* with *Gnetum*

b) Structure and dehiscence of sporangium in *Pteris*

19. *Asteroxylon*

**C .Give a comprehensive account of any TWO of the following 2x10=20**

20. Heterospory and seed habit

21. Reproductive structures of Pentoxylales with a note on phylogeny

22. a) Morphology and anatomy of *Azolla* leaf b) Economic importance of gymnosperms

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