

Second Year B.Sc. Degree Examination, August/September 2008

Directorate of Correspondence Course

BOTANY

Paper – II : Gymnosperms, Paleobotany, Anatomy, Embryology and Ecology

Time : 3 Hours

Max. Marks : 75

- Note :* 1) Answer all questions required.
2) Draw diagrams wherever necessary.

I. Simple answer questions :

Answer in a **word, phrase** or a **sentence** :

(1×10=10)

- 1) Name the apogeotropic root found in cycas.
- 2) Who proposed Tunica-Corpus theory ?
- 3) What is tapetum ?
- 4) Define hydrosere.
- 5) Define fossil.
- 6) In *Pinus* which cone is bigger in size ?
- 7) Which era of geological time scale is regarded as 'golden age of cycads' ?
- 8) What is pollination ?
- 9) What is meant by triple fusion ?
- 10) What is soil erosion ?

II. **Short answer questions :**

Answer **any FIVE** of the following :

(5×3=15)

- 11) Explain the effects of deforestation.
- 12) Draw a labelled diagram of polygonum type of embryo sac.
- 13) Draw diagrams of L.S. of scalariform and bordered pitted vessels.

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- 14) Mention the salient features of lepidodendron.
- 15) Describe the microsporophyll of cycas.
- 16) Mention the vegetational types of Karnataka.
- 17) List out the Angiospermic characters of Gnetum.

III. **Medium** answer questions :

Answer **any FIVE** of the following :

(5×6=30)

- 18) Draw a labelled diagram of T.S. of mature anther.
- 19) Explain the internal structure of monocot root.
- 20) Explain megasporogenesis with labelled diagrams.
- 21) Explain the morphological adaptations of Halophytes.
- 22) Explain Histogen theory.
- 23) Draw labelled diagram of L.S. of Gnetum Ovule and describe.

IV. **Long** answer questions :

Answer **any TWO** of the following :

(2×10=20)

- 24) Explain Xerosere upto climax stage.
- 25) Explain different types of ovule with labelled diagrams.
- 26) Explain secondary growth in dicot stem.
- 27) Describe the following :
 - a) T. S. of Pinus needle.
 - b) Types of vascular bundles.