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Reg. No.

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IV Semester B.Sc. Degree Examination, September/October - 2022

BOTANY

Gymnosperms and Embryology of angiosperms
(CBCS Scheme Fresher -2021-22)

Paper : IV



Time : 3 Hours

Maximum Marks : 70

Instructions to Candidates :

1. Answer all Questions
2. Draw diagrams wherever necessary.

PART - A

I. Answer any TEN of the following in Two to Three sentences. (10×2=20)

- 1) What is manoxylic wood? Where do you find them?
- 2) What is Endothelium?
- 3) Draw a neat labelled diagram of Cycas microsporophyll.
- 4) Give any two applications of palynology.
- 5) What is porogamy?
- 6) What is Helobial endosperm?
- 7) What is megasporogenesis?
- 8) What is NPC system?
- 9) Mention the types of microspore tetrads in angiosperms.
- 10) Mention two uses of Ephedra and Ginkgo.
- 11) Mention any two practical applications of plant tissue culture.
- 12) Define Triple fusion and syngamy.

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PART - B

II. Write critical notes on any Four of the following.

(4×5=20)

- 13) Female cone of Gnetum.
- 14) Functions of Tapetum.
- 15) Contributions of B.G.L. Swamy to embryology.
- 16) Embryo culture.
- 17) Anatomy of stem of cycas.
- 18) Tissue culture industry in India.

PART - C

III. Give comprehensive account of any THREE of the following

(3×10=30)

- 19) Anatomy of leaflet of cycas.
 - 20) Development of free nuclear and cellular endosperm.
 - 21) Microsporogenesis in Angiosperms.
 - 22) Development and structure of monocot embryo
 - 23) a) Somatic embryogenesis
b) Synthetic seed technology.
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