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TDC (CBCS) Odd Semester Exam., 2021
held in March, 2022

BOTANY

(5th Semester)

Course No. : BOTHCC–501T

(Reproductive Biology of Angiosperms)

Full Marks : 50
Pass Marks : 20

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer any *ten* questions : 2×10=20

1. Briefly mention the research contributions of Amici.

2. Write about contributions of Jensen.

3. Give a short account of contributions of Nawaschin.

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4. Write a note on microsporogenesis.

5. What do you mean by polyads?

6. Give a brief account of callose deposition and its functions.

7. Write about obturator.

8. Give a brief account of aril and caruncle.

9. Differentiate between self-pollination and cross-pollination.

10. Briefly explain interspecific and intraspecific incompatibility.

11. Write a note on stub pollination.

12. Give a brief account of bud pollination.

13. Write a note on embryo-endosperm relationship.

14. Briefly explain the types of endosperm.

15. Write about development of monocot embryo.

(Continued)

SECTION—B

Answer any *five* questions : 6×5=30

16. Give an illustrated account of the major contributions of Strasburger and Maheshwari in the field of reproductive biology of angiosperms. 3+3=6

17. Give a detailed account of scope of reproductive biology of angiosperms.

18. Describe flower as a modified determinate shoot in detail.

19. Give a detailed account of male germ unit (MGU). Draw various steps of micro-gametogenesis. 4+2=6

20. Describe various contrivances for self- and cross-pollination in angiosperms with suitable examples.

21. Give an account of organization and ultrastructure of mature embryo sac. Add a note on double fertilization in angiosperms. 3+3=6

22. What is *in vitro* pollination? Give a detailed account of parasexual hybridization. 2+4=6

(Turn Over)

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23. Write a note on cybrids with necessary diagram. Add a note on *in vitro* fertilization. 4+2=

24. Describe structure and functions of suspensor. Add a note on apomixis. 4+2=

25. Give an illustrated account of classification, causes and applications of polyembryony. 3+2+1=

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