K18U 0081

Reg. No. : .....

Name : .....

VI Semester B.Sc. Degree (CBCSS-Reg./Supple./Imp.) Examination, May 2018
CORE COURSE IN BOTANY/PLANT SCIENCE
6B10 BOT/PLS : Plant Tissue Culture, Embryology and Palynology
(2014 Admn. Onwards)

Time : 3 Hours

Max. Marks : 40

SECTION – A
(Answer **all**)

1. Carbon source in tissue culture media
   a) Agar Agar
   b) Amino acid
   c) Sucrose
   d) Ammonium nitrate

2. Transfer of pollen grains from anther to stigma
   a) Selfing
   b) Crossing
   c) Pollination
   d) Fertilization

3. Egg is partially surrounded by two
   a) Megaspores
   b) Synergids cells
   c) Polar nuclei
   d) Antipodal cells

4. Small pore at apex of ovule
   a) Perisperm
   b) Integument
   c) Micropyle
   d) Chalaza

(4×1=4)

SECTION – B
(Answer **any eight**)

5. Write a note on structure dicot embryo.

6. Explain differentiation and dedifferentiation.

P.T.O.

7. What is somaclonal variation ?
8. Explain procedure for acetolysis of pollen.
9. What is agamospermy ?
10. Write a note on cell suspension culture.
11. Explain microsporogenesis.
12. What is pollen allergy ?
13. Write about Laminar air flow cabinet.
14. Write a note on wall layers of microsporangium.
15. How can we produce disease free plants ?
16. Write a short note on pollen structure. **(8×2=16)**

SECTION – C
(Answer **any four**)

17. Explain haploid plant production.
18. Write about secondary metabolite production in cell suspension culture.
19. Write a note on different types of endosperm.
20. Explain different sterilization techniques.
21. Explain production of synthetic seeds.
22. What is polyembryony ? Explain different types. **(4×3=12)**

SECTION – D
(Answer **any one**)

23. Explain different types of development of female gametophyte.
24. Describe procedure for protoplast culture. Mention importance.
25. Describe composition and preparation of MS medium. **(1×8=8)**

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