K18P 0895

Reg. No. : .....

Name : .....

Third Semester M.Sc. Degree (Reg./Suppl./Imp.) Examination, October 2018
BOTANY
(2014 Admn. Onwards)
BOT3E01 : Biotechnology and Bioinformatics

Time : 3 Hours Max. Marks : 60

SECTION – A

1. a) Write an account on micropropagation.

   OR

   b) Explain the techniques of in vitro conservation of germplasm.

2. a) Explain methods of in vitro production of haploids.

   OR

   b) Give an account of in vitro mutagenesis in crop improvement. **(2×8=16)**

SECTION – B

Answer **any two** : **(2×6=12)**

3. a) What are hairy roots ?
   b) Explain the methods of hairy root culture.
   c) Give an account of in vitro production of secondary metabolites. **(1+2+3)**
4. a) What is bioinformatics ?
   b) Explain major bioinformatics resources.
   c) Write an account of molecular visualization tools. **(1+2+3)**
5. a) What is recombinant DNA ?
   b) Explain the role of C-DNA library.
   c) Write an account on screening of cloned genes. **(1+2+3)**

P.T.O.

SECTION – C

Answer **any six** : **(6×3=18)**

6. Write an account of embryo culture techniques.
7. Explain the method of production of synthetic seeds.
8. Write an account of soniatic embryogenesis.
9. Explain the techniques of protoplast isolation.
10. Write an account on protoplast fusion methods.
11. Explain the techniques of endosperm culture.
12. Write an account of factors affecting in vitro organogenesis.
13. Explain the techniques of meristem culture.

SECTION – D

Answer **any seven** : **(7×2=14)**

14. Meristemoid
15. Differentiation
16. DNA bank
17. Somatic hybrid
18. Haploids
19. Elicitors
20. Antisense RNA
21. Data base
22. Multiple sequence alignment
23. Vitrification.
