

Avinashilingam Institute for Home Science and Higher Education for Women.
(Deemed to be University) Coimbatore- 641 043
Bachelor's Degree Examination - November - 2018
V-SEMESTER

Class : III UG

Major: Biochemistry and Biotechnology

Time : 3 hrs

Max Marks: 100

15BBTC11- Plant Biotechnology

PART-A

10x1=10

Choose the Correct Answer

1. Which medium is mainly used for plant tissue culture-----
a) MacConkey agar b) MS medium c) DMEM
d) Nutrient Agar
2. Which type of method is mainly used for the treatment for eradication of microorganism -----
a) Flame sterilization b) Chemical sterilization c) Filter sterilization
d) Dry sterilization
3. A process by which an embryo develops from fertilized egg cell is called as -----
a) Endomitosis b) Embryogenesis c) Gametogenesis d) Organogenesis
4. In vitro clonal propagation of plants is called as -----
a) Microinjection b) Micropropagation c) Micro culture
d) Macro culture
5. Which plant hormone is mainly involved in fruit ripening process-----
a) Auxin b) Gibberlins c) Cytokinins d) Ethylene
6. Which plasmid is mainly involved in crown gall disease. ----- in plants,
a) pUC b) YAC c) p BR322 d) Ti plasmid
7. A study that deals with formation of flowering in agriculture field.
a) Horticulture b) Floriculture c) Olericulture d) Aquvaculture
8. An organism that has been modified by the applications of recombinant DNA technology
a) GMO b) GEO c) GAO d) GTO
9. In Bt cotton plant is highly resistance to -----
a) Pest b) Insects c) Stress d) Cold condition.
10. Which enzyme is mainly involved in scavenging of free radical hydrogen peroxide -----
a) Peroxidase b) Superoxide dismutase c) Catalase
d) Ascorbate peroxidase

PART- B

5X6= 30

Answer ALL questions

Answer should not exceed 400 words or two pages

- 11 a) Give short notes on lab equipments for plant tissue culture laboratory.
(Or)
- 11.b) Describe totipotency.
12. a) Brief on micro propagation.
(Or)
12. b) Describe on the production of haploids and their applications.
13. a) Comment on Vir genes.
(Or)
- 13.b) What are reporter genes? How are they useful?
- 14.a) Discuss about the concept of floriculture
(Or)
- 14.b) Explain the role of bioreactors for production of secondary metabolites.
15. a) How herbicide tolerance is achieved through tissue culture?
(Or)
- 15.b) Explain on development of virus resistance plant through tissue culture.

PART -C

5x12=60

Answer ALL questions

Answer should not exceed 800 words or four pages

16. a) Describe the techniques of sterilization for plant tissue culture laboratory
(Or)
- 16.b) Write detailed notes on Macro and Micro nutrients.
- 17 a) Explain the mechanism of embryogenesis
(Or)
- 17.b) Describe the process of organogenesis
18. a) Write a detailed note of Ti plasmid in on plant transformation.
(Or)
- 18.b) Describe any two physical methods for plant transformation.
- 19.a) Explain the production of plants using tissue culture
(Or)
- 19.b) What is biotransformation? Explain the detailed mechanism and applications of biotransformation
20. a) Describe in detailed on the mechanism of antisense RNA technology
(Or)
20. b) Write detailed notes on abiotic stress tolerant.
