

**SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2013**

(CCSS)

**Microbiology****MB 6B 21 (E2)—CELL AND TISSUE CULTURE**

Time : Three Hours

Maximum : 30 Weightage

**Part A***Answer all questions.*

1. The most commonly used carbon source in plant tissue culture media is :
  - (a) Glucose.
  - (b) Sucrose.
  - (c) Agar.
  - (d) Starch.
2. Which of the following is not a cytokinin ?
  - (a) Isopentyladenine.
  - (b) zeatin.
  - (c) BAP.
  - (d) Picloram.
3. The part of plant used in plant tissue culture is
4. Growth hormones are sterilised by
5. The formation of embryoids from somatic cell is known as :
  - (a) Embryogenesis.
  - (b) Somatic embryogenesis.
  - (c) Suspension culture.
  - (d) Embryo culture.
6. The portion of the Ti plasmid integrated in to plant cell chromosome is \_\_\_\_\_
7. The chemical used to diploidize haploids is
8. The type of culture used for the production of secondary metabolites is \_\_\_\_\_
9. The enzymes used in protoplast isolation is
10. \_\_\_\_\_ is used to produce virus free plants.

Expand the following :-

11. IAA.
12. MSA.

(12 x = 3 weightage)

**Turn over .**

**Part B**

Comment on :

13. Auxins.
14. Haploid production.
15. Totty potency.
16. Attach dependent cells.
17. Callus culture.
18. Sterilization.
19. Media used for plant cell.
20. Protoplast.
21. Absciscic acid.

(9 x 1 = 9 weightage)

**Part C**

*Write notes on any **five** of the following.  
Answer not to exceed **one page**.*

22. Explant Selection.
23. Media formulations.
24. Androgenesis.
25. Protoplast fusion.
26. Testing viability of cells.
27. Direct gene transfer.
28. Cell marker.

(5 x 2 = 10 weightage)

**Part D**

*Answer any **two** of the following.*

29. Cultivation of plant and animal cell.
30. Somatic embryogenesis and its applications.
31. Stem cell culture and its applications.

(2 x 4 = 8 weightage)