

**SIXTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
MARCH 2021**

Biotechnology

BTY 6B 14—ANIMAL BIOTECHNOLOGY

Time : Three Hours

Maximum : 80 Marks

Section A

Answer two questions.

Each question carries 10 marks.

1. Describe different methods to measure cytotoxicity of a drug.
2. Discuss different methods used for revival and maintenance of animal cell culture.
3. Discuss different equipments in an animal cell culture laboratory and explain the role of each.
4. What is immortalization ? Explain different methods for immortalization of cell lines.

(2 × 10 = 20 marks)

Section B

Answer at least seven questions.

Each question carries 5 marks.

All questions can be attended.

Overall Ceiling 35.

5. Discuss the merits and demerits of serum in the medium.
6. Give an account on mouse embryo culture.
7. Give a note on different natural media used to cultivate animal cell.
8. Discuss the characterization of an established cell line.
9. Give an account on different types of culture vessels used for animal cell culture.
10. Discuss various sterilization methods employed in animal cell culture.
11. Describe various application of animal cell culture for human welfare.
12. Describe the methods for quantification of cells in cell culture.
13. What is balanced salt solution? Discuss its role in animal cell culture.
14. Discuss the characteristics of normal and transformed cells.
15. Discuss the physicochemical properties effect the animal cell culture.

Turn over

16. Describe the organization of Retrovirus vector and how it used as an animal vector.
17. Give an account on contamination of animal cell culture media.
18. Explain any four methods to characterize cell lines.

(7 × 5 = 35 marks)

Section C

*Answer at least **three** questions.
Each question carries 5 marks.
All questions can be attended.
Overall Ceiling 15.*

19. Give brief account on monolayer culture.
20. Explain primary explant technique.
21. Describe multicellularity and differentiation.
22. Explain estimation of viability by dye exclusion.
23. Give brief account on any two human normal cell lines.

(3 × 5 = 15 marks)

Section D

*Answer **all** question.
Each question carries 2 marks.*

24. Contact inhibition.
25. Mycoplasma.
26. SV 40.
27. Cryostorage.
28. Cytopathic effect.

(5 × 2 = 10 marks)