



QP CODE: 24028960



Reg No :

Name :

**B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, OCTOBER
2024**

Fifth Semester

B.Sc Biotechnology Model III

CORE COURSE - BT5CRT14 - ANIMAL BIOTECHNOLOGY

2017 Admission Onwards

51A36E1B

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Name the first human cell line established.
2. What is MEM?
3. Name a hormone that promotes the uptake of glucose and aminoacids in culture media.
4. What is the objective in preparing regents and media?
5. Cell proliferation.
6. What is a cell line?
7. Commonly used cell lines.
8. Embryonic stem cells.
9. Most widely used insect cell based expression system.
10. What is heterokaryon?
11. What is secondary metabolites?
12. Mention the role of animal cell culture in medical and cancer research.

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Briefly write down the routes of contamination.





14. Give a note on sterile handling area.
15. Give an account on the importance of serum in culture medium.
16. Give a note on the inhibitory and stimulatory role of growth factors.
17. How continuous cell culture can be established and maintained? Explain.
18. What is organ culture and mention its importance.
19. Write a short note on air lift fermentor.
20. Write about microinjection method.
21. Explain knock-out and knock-in technology.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Illustrate the importance of different constituents of culture media.
23. Write an essay on anchorage and nonanchorage cells in cell culture.
24. Write an essay on the large scale culture of cell lines.
25. Write a detailed account on vaccines and the production of vaccines through cell culture.

(2×10=20)

