QP CODE: 21100035

21100035

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) EXAMINATION, FEBRUARY 2021

Fifth Semester

B.Sc Biotechnology Model III

Core Course - BT5CRT14 - ANIMAL BIOTECHNOLOGY

2017 Admission Onwards

6F5B6976

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. What is 'substrate' in cell culture?
2. What is drying oven?
3. What is plating efficiency?
4. What is filter sterilization?
5. What are transformed animal cells?
6. Cell synchronisation.
7. Established cell line.
8. Name a source of human stem cells to get continuously growing cell line.
9. Most widely used insect cell based expression system.
10. What is DNA vaccine?
11. Explain the various method of transgenesis.
12. Target mutation.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Write on the discovery of Carrel's Flask.
14. Explain the layout of an animal tissue culture laboratory.
15. Write a note on the preparation of tissue extracts.

16. Write the role of insulin in culture media.

17. Describe the origin and characteristics of commonly used animal cell lines.

18. Write a note on monolayer culture.

19. Write a note on bioreactors for large scale culture of cells.

20. Explain the production of recombinant insulin and growth hormone.

21. Write an essay on the applications of animal cell culture in medical and cancer research.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. How do growth hormones affect the growth and proliferation of cells in culture? Explain.

23. Write an essay on anchorage and nonanchorage cells in cell culture.

24. Desribe the 3D culture. Explain the techniques and applications of 3D culture.

25. Write an essay on hybridoma technology and production of monoclonal antibodies.

(2×10=20)