E 5339 (Pages : 2) Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2018

Fifth Semester

Core Course 18—ANIMAL BIOTECHNOLOGY

(For B.Sc. Biotechnology)

[2013 Admission onwards]

Time : Three Hours Maximum Marks : 80

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. Write about uses of EDTA.
2. What is embryo culture ?
3. Name a continuous cell line culture.
4. What is pluripotency ?
5. Mention use of trypsin in cell culture.
6. What is downstream processing ?
7. Name a marker gene.
8. What is MEM ?
9. What are polyclonal antibodies ?
10. Write about cell strain.

(10 × 1 = 10)

Part B

Answer any **eight** *of the following.*
Each question carries 2 *marks.*

11. Write a note on biological fluids used in culture media.
12. Explain monolayer culture.
13. Mention significance of BSS.
14. Explain importance of stem cell culture.
15. Write a note on uses of plasma clot.

Turn over

16. What is immobilized culture ?
17. Write about vectors used for transgenesis in animals.
18. Explain how viability of cells can be tested.
19. Explain 3D culture.
20. Write about substrates used for anchorage dependent cell culture.
21. What is cell differentiation ?
22. Mention methods for sterilization of media.

(8 × 2 = 16)

Part C

Answer any **six** *of the following.*
Each question carries 4 *marks.*

23. Give an account of primary cell culture.
24. Write an account on knock out and knock in technology.
25. Explain characteristic features of animal cell lines.
26. Explain role of hormones in animal cell culture.
27. Write an account on significance of transgenic mice and cow.
28. Write about production of vaccines through cell culture.
29. Explain use of bioreactors in cell culture.
30. Illustrate procedure for preparation of culture media.
31. Explain importance of serum in culture media.

(6 × 4 = 24)

Part D

Answer any **two** *of the following.*
Each question carries 15 *marks.*

32. Describe animal cell line culture and maintenance.
33. Illustrate requirements of animal cell culture lab.
34. Give an account on different culture medias for animal cell culture.
35. Describe hybridoma technology and production of monoclonal antibodies.

(2 × 15 = 30)