

E 7136

(Pages : 2)

Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, APRIL 2019

Fifth Semester

Core Course 18—ANIMAL BIOTECHNOLOGY

[For B.Sc. Biotechnology]

(2013—2016 Admissions)

Time : Three Hours

Maximum Marks : 80

Part A

Answer all questions.

Each question carries 1 mark.

1. Explain animal cloning.
2. What is subculture ?
3. Mention uses of trypsin.
4. What is a hybridoma ?
5. Write about cell line.
6. What is cryopreservation ?
7. Define transgenesis.
8. Write about lag phase of growth cycle.
9. What is monolayer culture ?
10. What is biopharming ?

(10 × 1 = 10)

Part B

Answer any eight questions.

Each question carries 2 marks.

11. Explain importance of oxygen and CO₂ in animal cell culture.
12. Write a note on commonly used carbon sources in media.
13. Write about balanced salt solution.
14. Give an account of causes of genetic instability in cell culture.
15. What is cell differentiation ?

Turn over

16. Explain types of contamination in cell line culture.
17. Write about uses of transgenic mice.
18. Write about any *two* vessels used in animal cell culture.
19. Explain the characteristic features of stem cells.
20. Write about importance of suspension culture.
21. Explain role of hormones in cell culture.
22. Write about immobilization of cells.

(8 × 2 = 16)

Part C

*Answer any six questions.
Each question carries 4 marks.*

23. Explain importance of serum in media.
24. Give an account on organ culture.
25. Explain knock in and knock out technology.
26. Describe the procedure for animal cell transformation.
27. Explain how cell lines can be maintained.
28. Explain production of metabolites through cell culture with an example.
29. Write about structure and functioning of bioreactors.
30. Write a note on anchorage dependent cell culture.
31. Explain applications of animal cell culture in pharmaceutical industry.

(6 × 4 = 24)

Part D

*Answer any two questions.
Each question carries 15 marks.*

32. Write about different types of animal cell culture media.
33. Explain how cell lines can be cultured in large scale culture.
34. What are monoclonal antibodies ? Explain production and uses of monoclonal antibodies.
35. Give an account on primary and secondary cell cultures.

(2 × 15 = 30)