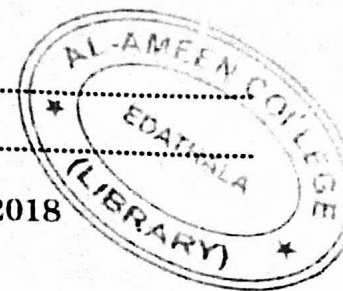


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Reg. No.....

Name.....



B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, APRIL 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. What is dedifferentiation?
2. Explain 'BSS'.
3. What is a feeder layer?
4. Mention use of Laminar air flow cabinet.
5. What is immobilized culture?
6. What is a monolayer culture?
7. Name an industrially important compound produced through animal biotechnology.
8. What are stem cells?
9. Define 'Transgenesis'.
10. Name an enzyme used for disaggregation of cells.

(10 × 1 = 10)

Part B

Answer any eight of the following.

Each question carries 2 marks.

11. Give a short note on Coulter counter.
12. Write a note on importance of CO₂ incubator.
13. What are vaccines? Name an oral vaccine.
14. Explain sterilization of explants in animal tissue culture.
15. Mention four applications of animal cell culture.
16. Explain 3D culture.

Turn over

17. Write about importance of de-ionized water in cell culture.
18. Mention role of hormones in cell culture.
19. Write about established cell line.
20. Write a short note on importance of transgenic mice.
21. Explain advantages of embryo transfer.
22. Write about secondary cell cultures.

(8 × 2 = 16)

Part C

Answer any six of the following.

Each question carries 4 marks.

23. Explain knock out and knock in technology.
24. Write an account on use of transgenic cow in pharmaceutical industry.
25. Explain how animal cells can be transformed.
26. Outline history of animal cell culture.
27. Explain how a cell line can be produced.
28. What are the major factors that effect animal cell culture ?
29. Write a short note on Cell differentiation.
30. Outline essential components of a cell culture media.
31. Explain characteristic features of primary cell culture.

(6 × 4 = 24)

Part D

Answer any two of the following.

Each question carries 15 marks.

32. Give an account on commonly used animal cell culture media.
33. Describe production of monoclonal antibodies.
34. Explain preparation and sterilization of media.
35. What is a bioreactor? Explain how it can be used for large scale culture of cells.

(2 × 15 = 30)