

D 40119

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Name.....

Reg. No.....

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2018

(CUCBCSS—UG)

Biotechnology

BTY 6B 14—ANIMAL BIOTECHNOLOGY

Time : Three Hours

Maximum : 80 Marks

Section A

*Answer any **two** out of **four** questions in about 1500 words.*

Each question carries 10 marks.

1. Explain the maintenance of an aseptic environment.
2. What are the characteristics of animal cell growth in culture ?
3. What are the essential requirements to set up an animal cell culture lab ?
4. What are the advantages and disadvantages of using serum free media for cell culture studies ?

(2 × 10 = 20 marks)

Section B

*Answer any **seven** out of **fourteen** questions in about 750 words.*

Each question carries 5 marks.

5. What is cryopreservation ?
6. What is a chemically defined media ?
7. What are the substrates used for animal cell growth ?
8. What are the properties of finite and continuous cell lines ?
9. What is organ culture ?
10. What are monolayers ?
11. What is a balanced salt solution ?
12. What is a synthetic media ?
13. Enzymatic disaggregation of tissue.
14. What is batch culture ?
15. What is hybridoma ?
16. What are cell lines ?

Turn over

17. Use of bioreactor for cell culture.
18. Significance of HeLa cell lines.

(7 × 5 = 35 marks)

Section C

*Answer **all** questions in about 300 words.*

Each question carries 3 marks.

19. What are chelating agents ?
20. Role of SV-40 in immortalization.
21. Define a sterile area.
22. What are the methods of freezing cells ?
23. What is the role of a hemocytometer in cell culture ?

(5 × 3 = 15 marks)

Section D

*Answer **all** questions in about 200 words.*

Each question carries 2 marks.

24. Role of bicarbonate in cell culture.
25. What is collagenase used for ?
26. What are roller bottles ?
27. Agar for culture.
28. Physical disaggregation.

(5 × 2 = 10 marks)