

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

0	9	7	6
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Exam. Code :

0	0	3	5
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B.Sc. (Hons.) Biotechnology 3rd Semester

(2122)

ANIMAL CELL CULTURE

Paper : BIOT-305-T

Time Allowed : Three Hours]

[Maximum Marks : 67

Note :— Attempt FIVE questions in all. Q. No. 1 is compulsory.
Select ONE question from each unit.

1. (a) What are CAMs ? 3
- (b) What is a cell strain ? 2
- (c) What is dye exclusion test ? 2
- (d) What is de complementation of serum ? 3
- (e) What is a humanized monoclonal antibody ? 3
- (f) Why is cell line authentication important ? 2

UNIT—I

2. (a) Discuss important events in development of modern day cell culture. 7
- (b) Discuss differentiation in cultured cells. 6
3. (a) Discuss different types of cell adhesion factors in cell culture. 7
- (b) Discuss the role of laminar air flow in animal cell culture. 6

UNIT—II

4. (a) Discuss the constitution and role of minimal essential medium. 7
(b) Discuss the process of establishing a secondary monolayer culture. 6
5. (a) Discuss the features of transformed animal cells. 7
(b) Discuss the process and role of warm trypsinization. 6

UNIT—III

6. (a) Discuss the characteristics and applications of any two infinite cell lines. 7
(b) Discuss growth kinetics of finite cell lines. 6
7. Discuss the role and procedure of following assays in cytotoxicity assessment :
(a) mutagenesis assay
(b) inflammation assay. 13

UNIT—IV

8. (a) Discuss the method and role of cryopreservation in animal cells. 7
(b) Discuss role of Molecular Biology in characterization of animal cells. 6
9. (a) Discuss the hybridoma technique for monoclonal antibody production. 7
(b) Discuss the significance of bioethics in cell culture handling. 6