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ZOH 451

Second Semester M.Sc. Examination, September/October 2022

(CBCS)

ZOOLOGY

Animal Cell Biotechnology

Time : 3 Hours

Max. Marks : 70

Instructions : 1) Answer *all* questions.

2) Give illustrations *wherever* necessary.

I. Write short notes on :

(5×2=10)

- a) Vertical laminar flow hood
- b) Subculture of monolayer
- c) Feeder layer
- d) Transfection
- e) Bt-toxin.

II. a) Give an account of essential and useful equipments required for the culture of animal cells.

12

OR

b) Describe the different type and utilities of culture media for animal cell culture.

III. a) Discuss on the evolution of cell lines with a note on their maintenance.

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OR

b) Give an account of types of primary culture techniques and their disaggregation of tissue isolated for primary culture.

IV. a) Write an account on culture and maintenance of mouse embryonic stem cells.

12

OR

b) Describe the production of monoclonal antibodies and their applications.

V. a) Describe the salient features and types of cloning vectors.

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OR

b) Describe recombinant DNA technology and add a note on its application in medicine and industry.

VI. a) Elaborate on the methods of introduction of desired genes into animal cells.

12

OR

b) Discuss the transgenic technology in improvement of farm animals.