

V Semester B.Sc. Examination, November/December 2018
(F+R/ CBCS)
BIOTECHNOLOGY - VI
Immunology and Animal Biotechnology

Time : 3 Hours

Max. Marks : 70

Instruction : Draw a neat labelled diagrams *wherever* necessary.

SECTION - A

(5×2=10)

I. Write short notes on the following

- 1) Tissue extract
- 2) ELISA
- 3) HeLa cell lines
- 4) B-lymphocytes
- 5) Inflammation.

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SECTION - B

(4×5=20)

II. Answer **any four** of the following :

- 6) Differentiate between Humoral and cell mediated immunity.
- 7) Explain Electroporation method of gene transfer.
- 8) Describe the type III hypersensitive reaction with an example.
- 9) Write a note on Active and Passive immunisation.
- 10) Give an account on Mechanical method of Tissue Disaggregation.

SECTION - C

(3×10=30)

III. Answer **any three** of the following :

- 11) Describe :
 - a) Calcium phosphate mediated transfection.
 - b) Primary cell culture.



- 12) Define complement system. Explain the components and properties of classical complement system.
- 13) Give an account on :
 - a) Transgenic sheep
 - b) Barriers of innate immunity.
- 14) Explain HAT selection method in screening of hybrid cells.
- 15) What are antibodies ? Explain the structure and functions of IgM and IgG.

SECTION - D

IV. Answer the following :

(1×10=10)

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- 16) Define cell strain
- 17) Transgenic mice
- 18) Adjuvants
- 19) Plasma
- 20) Who discovered blood grouping in humans ?
- 21) Fibronectin
- 22) Opsonization
- 23) Expand HGPRT
- 24) Attenuation
- 25) Raft method.