



NS – 372

V Semester B.Sc. Examination, Nov./Dec. 2016

(F+R/CBCS)

BIOTECHNOLOGY – VI

Immunology and Animal Biotechnology

Time : 3 Hours

Max. Marks : 70

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

SECTION – A

I. Write short notes on the following :

(5×2=10)

- 1) MALT.
- 2) Transgenic mice.
- 3) Immunogenicity.
- 4) PDGF.
- 5) DNA Vaccine.

SECTION – B

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

(4×5=20)

- 6) Differentiate between humoral and cell mediated immunity.
- 7) Write a note on the different types of natural media used in animal cell culture.
- 8) Describe the general structure of antibody molecule.
- 9) Describe the production of monoclonal antibodies.
- 10) Give an account of the classical pathway of complement system.

SECTION – C

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

(3×10=30)

- 11) Define immunity. Discuss the role of various cells involved in immune responses.
- 12) Define primary cell culture. Explain the process of primary cell culture in detail.



- 13) Describe hypersensitivity. Explain the mechanism of type I and II hypersensitive reactions.
- 14) Explain the precipitation and hemagglutination types of antigen-antibody reactions.
- 15) Discuss the applications of Animal Biotechnology.

SECTION - D

IV. Answer the following :

(1×10=10)

- 16) What are paratopes ?
- 17) What is EGF ?
- 18) Mention the types of T-cells.
- 19) Define subculturing.
- 20) Name the person who developed ABO blood grouping.
- 21) Mention any two methods of purification during downstream processing.
- 22) Expand ELISA.
- 23) What is the role of hypoxanthin in HAT selection ?
- 24) Name the maternal antibody which passes through placenta.
- 25) What are plantibodies ?

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