

SN - 300

V Semester B.Sc. Examination, November/December 2014
(Semester Scheme) (F+R)
BIOTECHNOLOGY - VI

BTP 503 : Immunology and Animal Biotechnology
(70-2013-14 and Onwards, 60- Prior to 2013-14)

Time : 3 Hours

Max. Marks : 70/60

- Instructions :**
- 1) 70 marks for students of 2013-14 onwards.
 - 2) 60 marks for repeater students prior to 2013-14.
 - 3) Section A, B, C common to all.
 - 4) Section D for students of 2013-14 Onwards.
 - 5) Draw diagrams wherever necessary.

SECTION - A

I. Write short notes on the following.

- 1) H-chain of antibody
- 2) Louis Pasteur
- 3) Erythropoietin
- 4) Hybridoma cells
- 5) Attenuation.

(5x2=10)

SECTION - B

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

- 6) Write a note on types of T-lymphocytes.
- 7) Explain delayed type hypersensitivity.
- 8) Write a note on DNA vaccines.
- 9) Write an account on serum free media.
- 10) What is inflammation ? Explain.

(4x5=20)

SECTION – C

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

- 11) Explain the barriers of innate immunity.
- 12) What are growth factors ? Explain EGF, PDGF, NGF.
- 13) Explain classical pathway of complement activation. Add a note on the functions of complement system.
- 14) Explain :
 - a) Precipitation patterns in ODD
 - b) Phagocytosis.
- 15) Give the applications of transgenic sheep and mice.

B.M.S.C.W

SECTION – D

(From 2013-14 batch Onwards)

IV. Answer the following in **one** sentence.

- 16) What is transfection ?
- 17) What are HeLa cell lines ?
- 18) Expand ELISA.
- 19) Who discovered blood groups in man ?
- 20) Where do B-cells mature in birds ?
- 21) Expand EDTA.
- 22) What are haptens ?
- 23) What are colony stimulating factors ?
- 24) Name the immunoglobulin which can pass through the placenta.
- 25) Name 2 detergents used for cell disruption.