

No. of Printed Pages : 03

Roll No.

BB-332

M. Sc. EXAMINATION, Dec. 2017

(Second Semester)

(Re-appear Only)

BIOTECHNOLOGY

BT-504-MS

Immunology-I

Time : 3 Hours]

[Maximum Marks : 100

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

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P.T.O.

Unit I

1. Discuss the types and generation of immunoglobulin classes at the genetic level. Cite the role of different Ig-classes in human immune response. **20**
2. Describe briefly the following : **5×4=20**
 - (a) Bernet's Hypothesis
 - (b) Effector response
 - (c) Haptens
 - (d) Ig-triggering in pathogenic infection
 - (e) Antigenic-determinants.

Unit II

3. Discuss the mechanism of antigen processing and presentation through MHC-complexes. **20**
4. Describe mode of maturation, activation and differentiation of B-cells and T-cells at their specific site in body. **20**

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Unit III

5. Describe the principle, working and applications of ELISA and RIA in immunology. **20**
6. What is hybridoma technology ? Describe, how we can produce monoclonal and polyclonal antibody through it. **20**

Unit IV

7. Describe the mechanism of immunoresponse generated through bacterial, viral and parasitic infections to human body. Cite specific examples of each type. **20**
8. Write notes on the following : **5×4=20**
 - (a) Self and Non-self recognition in Graft-transplantation
 - (b) Cancer therapy
 - (c) HIV and immune response
 - (d) Vaccine for polio.

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