

**B.Sc. IN MEDICAL LABORATORY
TECHNOLOGY (BMLT)**

Term-End Examination

June, 2016

00268

BAHI-007 : IMMUNOLOGY

Time : 3 hours

Maximum Marks : 70

Note : *The question paper consists of three parts, Parts A, B and C. Attempt any **three** questions from Part A. Attempt **all** questions from Part B and Part C.*

PART A

*Answer any **three** of the following. Each question carries 10 marks.*

1. Briefly describe the complement system and its various pathways. 10
2. Define and classify vaccines. Add a short note on BCG vaccine. 10
3. Define and classify antigen-antibody reactions. Add a note on the VDRL test. 10
4. Define the various types of hypersensitivity reactions. Write a short note on immediate (Type-I) hypersensitivity reaction. 10

PART B

5. Write short notes on any *four* of the following : $4 \times 5 = 20$

- (a) Widal Test
- (b) Tetanus Toxoid
- (c) ELISA
- (d) Autoimmune Reactions
- (e) Mantoux Test

6. Write briefly about the following : $5 \times 2 = 10$

- (a) Incomplete antigen
- (b) Antistreptolysin O
- (c) Definition and example of autoimmunity
- (d) Precipitation Tests
- (e) Immunofluorescence

PART C

7. Write *True* or *False* against the following statements : 5×1=5

- (a) Anaphylactic shock is an example of delayed (Type-IV) hypersensitivity.
- (b) DPT vaccine protects against diphtheria, polio and typhoid.
- (c) HIV targets CD4 + T-lymphocytes.
- (d) Eosinophils are increased in parasitic infections.
- (e) B-lymphocytes are chiefly involved in cell mediated immunity.

8. Fill in the blanks from the choices provided. 5×1=5

- (a) An example of an innate immune component is _____ .
 - (i) Natural killer cells
 - (ii) Plasma cells
- (b) SDS-PAGE stands for _____ .
 - (i) Sodium dodecyl sulphate polyacrylamide gel electrophoresis
 - (ii) Synthetically derived soluble particle gradient electrophoresis

- (c) Genetically programmed death of autoreactive T-lymphocytes in thymus is via _____ .
- (i) apoptosis
 - (ii) necrosis
- (d) _____ antibodies are capable of crossing the placenta to reach the fetus.
- (i) IgG
 - (ii) IgM
- (e) Neutrophils kill invading bacteria by _____ .
- (i) secreting antibodies directed against them
 - (ii) oxidative burst of H_2O_2 and free radicals
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