

## ZOOLOGY Paper-II (ZOO-602 A)

(Applied Zoology-II Opt. (i) Medical Zoology and Medical Laboratory Technology-II)

Time Allowed : 3 Hours

Maximum Marks : 36

Note : Question No. 1 is compulsory. Attempt *one* question each from Units-I, II, III and IV. Draw well labelled diagrams wherever necessary.

1. Briefly explain the following :

- (i) Complement Fixation
- (ii) Polymorphonuclear cells
- (iii) Epitope
- (iv) Immunogenicity
- (v) Macroglobulin
- (vi) Spectrophotometry
- (vii) Romanowsky's Stain
- (viii) Fixatives

8×1=8

### UNIT-I

2. Write briefly about :

- (a) Respiratory Burst
- (b) Opsonization

3.5 + 3.5

3. (a) Differentiate between-B and T-lymphocytes.  
(b) Enumerate the factors which can affect the immunogenicity of an antigen molecule. 3.5 + 3.5

#### UNIT-II

4. (a) Explain clonal selection theory of antibody formation.  
(b) Describe the various antigen and antibody interactions. 3 + 4
5. (a) What are Vaccines ? Give their types with examples.  
(b) Give the Principles of Vaccination. 4 + 3

#### UNIT-III

6. (a) Compare and contrast between compound Microscope and electron Microscope.  
(b) Give an account of Colorimetry. 4 + 3
7. Write an account about Romanowsky's Stain and its commonly used modifications. 7

#### UNIT-IV

8. Give qualitative tests for estimation of Blood Glucose and Blood Urea. 7
9. Explain the following :  
(a) AFB Staining  
(b) Different types of Culture Media. 3.5 + 3.5