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**SUBJECT CODE NO: - S-6108**  
**FACULTY OF SCIENCE AND TECHNOLOGY**  
**M.Sc. (Sem –IV) (Zoology (Old))**  
**Examination May / June - 2023**  
**Methods in Biology-512**

[Time: 3:00 Hours]

[Max. Marks: 80]

Please check whether you have got the right question paper.

N. B

- 1) Part A is compulsory.
- 2) Attempt any five questions from part B.
- 3) Draw diagram wherever necessary.

**Part A**

Q1 Multiple choice questions (each questions carries marks)

20

1. Chemically an antibody is \_\_\_\_\_  
a. Protein      b. Killer T. cills      c. Lipid      d. Nucleon Portion
2. Hay fever is due to \_\_\_\_\_  
a. Hepatitis      b. Allergy      c. dengue      d. helper T. cells
3. AIDS caused by \_\_\_\_\_  
a. RNA virus      b. DNA virus      c. Herpes virus      d. Hepatitis virus
4. A molecule that produce an immune response is \_\_\_\_\_  
a. Antigen      b. antibody      c. carcinogen      d. mutagen
5. Blood group has A and B antigens but no antibodies it is \_\_\_\_\_  
a. A      b. O      c. AB      d. B
6. Inflammation reaction is brought about by \_\_\_\_\_  
a. Plasma cells      b. mast cells      c. macrophages      d. adipose cells
7. The immunoglobulins found in mother milk is \_\_\_\_\_  
a. Igm      b. IgA      c. Ig E      d. Ig G
8. Chan croid is caused by \_\_\_\_\_  
a. H ducregi      b. Staphycococci      c. strephococci      d. non
9. Macrophages are derived from \_\_\_\_\_  
a. Neutrophils      b. Lymphocytes      c. Monocytes      d. Basophils
10. Agretope is the region of antigen that interacting with \_\_\_\_\_  
a. TCR      b. MHC      c. a and b      d. antibody

**Part B**

- Q2 Explain virtualisation of cells and subcellular components by light microscopy. 12
- Q3 Describe analysis of biomolecule using florescence. 12
- Q4 Give account of properties of different types of radioisotopes normally used in biology. 12
- Q5 Write in detail isolation and purification of RNA and DNA. 12
- Q6 What is DNA sequencing methods AFLP techniques? 12
- Q7 Describe Phr logical technique of PET, MRI, IMRI and CAT. 12
- Q8 Write a note on radiolabelling techniques in biological tissue and cells. 12