[Time: Three Hours] **[Marks:100]**

Please check whether you have got the right question paper.

N.B:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Draw neat and labelled diagrams wherever necessary.
4. Answer the questions in proper order.

Q. 1 Answer the following (Any Two): **(20)**

(a) Describe the composition of plasma.
(b) Give an account of the factors involved in the clotting of blood. Add a note on the structure of thrombocytes.
(c) What is haemorrhage? Discuss the compensatory changes employed after haemorrhage.

Q. 2 Answer the following (Any Two): **(20)**

(a) Elaborate on the microscopic examination of blood for the detection of lymphoma and myeloma.
(b) Give an account of the enzymes which serve as markers for liver damage or injury.
(c) Explain the clinical significance of evaluation of FSH and LH levels in the blood.

Q. 3 Answer the following (Any Two): **(20)**

(a) Give a detailed account of cell mediated immunity.
(b) Describe the lymph node as a secondary organ of immunity.
(c) What are antibodies? With the help of a labelled diagram explain the basic structure of an antibody.

Q. 4 Answer the following (Any Two): **(20)**

(a) Describe the characteristics and mechanism of precipitation reaction. Add a note on precipitation in gels.
(b) Explain the principles of vaccination and add a note on the various routes of immunization.
(c) Discuss the different measures to prevent graft rejection.

Q. 5 Write short notes on (Any Four): **(20)**

(a) ESR.
(b) Sickle cell anemia and its diagnosis.
(c) Coomb's test.
(d) Adjuvants used for human vaccines.
(e) Macrophages.
(f) Causes of increase and decrease in blood volume.