

[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) Explain the types of plasma proteins and their functions.
- (b) What is anemia? Give an account of the different types of anemia.
- (c) Describe the mechanism of clotting of blood.

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

- (a) Describe in detail the microscopic examination of blood for the diagnosis of malaria.
- (b) Explain the blood tests performed to detect impairment of renal function.
- (c) What are coagulopathies? Discuss the common coagulopathies and their lab diagnosis.

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

- (a) Explain the different types of acquired immunity.
- (b) Give an account of the different types of T cells and their functions.
- (c) Describe the processing and presentation of exogenous and endogenous antigens.

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

- (a) Give an account of agglutination as an antigen-antibody interaction. Add a note on haemagglutination tests.
- (b) Describe the different types of sub-unit vaccines.
- (c) Explain the immunological basis of graft rejection.

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

- (a) Degradation of hemoglobin.
- (b) Thyroid function tests.
- (c) Ig M.
- (d) Dendritic cells.
- (e) Types of grafts.
- (f) Thrombopoiesis.