



IMMUNOHEMATOLOGY & TRANSFUSION MEDICINE

PAPER – IV

IMHT/D/14/15/IV

Time : 3 hours

Max. Marks : 100

Important instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. a) Structure of dendritic cells. 3+3+4
b) Functions of dendritic cells
c) Their usefulness in clinical practice.
2. Objectives of National Blood Policy and its Impact on the practice of transfusion services in our country. 5+5
3. a) Rationale for multi-component collections. 3+3+4
b) Enumerate the various combinations of multi-component collection
c) Donor selection criteria for multi-component collection
4. Current standards of practice in Bio-waste management of blood banks. 10
5. Blood Bank Information Systems. 10
6. a) Transcription Mediated Amplification (TMA) Technology. 5+5
b) Advantages of TMA technology for Nucleic acid testing (NAT).
7. a) What are the various blood substitutes? 5+5
b) Discuss the current status of various red cell substitutes.
8. a) Principle of Polymerase Chain Reaction (PCR). 5+5
b) Applications of PCR in Transfusion Medicine.
9. Quality Indicators of Transfusion Medicine. 10
10. a) RFID Technology. 5+5
b) Discuss various technologies to prevent identification errors in transfusion chain.