IMMUNOHEMATOLOGY & TRANSFUSION MEDICINE

PAPER - 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 tables/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. a) Structure of dendritic cells.  
   b) Functions of dendritic cells  
   c) Their usefulness in clinical practice.  


3. a) Rationale for multi-component collections.  
   b) Enumerate the various combinations of multi-component collection  
   c) Donor selection criteria for multi-component collection  


6. a) Transcription Mediated Amplification (TMA) Technology.  
   b) Advantages of TMA technology for Nucleic acid testing (NAT).  

7. a) What are the various blood substitutes?  
   b) Discuss the current status of various red cell substitutes.  

8. a) Principle of Polymerase Chain Reaction (PCR).  
   b) Applications of PCR in Transfusion Medicine.  

9. Quality Indicators of Transfusion Medicine.  

10. a) RFID Technology.  
    b) Discuss various technologies to prevent identification errors in transfusion chain.

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