

**IMMUNO-HEMATOLOGY & TRANSFUSION MEDICINE**  
**PAPER-II**

IHTM/D/17/15 /II

TIME : 3 HOURS  
MAX. MARKS : 100

- 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 question 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. Give an account of the criteria for selection of screening and identification panel red cells and AHG reagents used for pre-transfusion testing. 10
2. a. Describe molecular structure of Rh antigen complex 5+5  
b. Molecular mechanisms of RhD negative phenotype
3. What measures you would take to prevent or delay red cell alloimmunization in a patient likely to receive multiple transfusions? 10
4. a. Compare and contrast MHC class I and MHC class II antigens 5+5  
b. Discuss HLA and disease association
5. a. Describe reasons for poor donor retention. 5+5  
b. What measures can be taken to overcome these problems?
6. a. Mechanism of Drug Induced Autoimmune Hemolytic Anemia 5+5  
b. Discuss laboratory diagnosis of this condition
7. "Type and Screen Policy" should be implemented in place of conventional cross match in India. Critically analyse this statement. 10
8. a. What is polyagglutination? 2+5+3  
b. Laboratory diagnosis of various types of polyagglutination.  
c. Transfusion support in a case of polyagglutination.
9. a. Describe ABO group discrepancies. 6+4  
b. Develop a protocol for resolution of ABO discrepancies at your hospital.
10. a. What is "Rare Blood Donor"? 2+3+5  
b. In your opinion, who is Rare Blood Donor in India?  
c. How would you establish Rare Donor Program in India?

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