

**IMMUNOHAEMATOLOGY & BLOOD TRANSFUSION**

**PAPER-III**

Time: 3 hours  
Max. Marks:100

IMHT/J/19/15/III

**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) Define the triggers for intrauterine transfusion. 5+5  
b) How will you select unit of blood for intrauterine transfusion?
2. a) Define Human Leucocyte Antigen system [HLA]. 5+5  
b) Role of HLA system in relation to Solid Organ and Bone Marrow Transplantation.
3. a) Pathogenesis of Transfusion Associated GVHD. 5+5  
b) Strategies to minimize TAGVHD in Allogeneic stem cell transplantation.
4. Strategies to decrease donor exposure in neonates. 10
5. a) Discuss different types of blood group discrepancies. 5+5  
b) Describe algorithm for the resolution of Group II & III ABO discrepancies.
6. Compare and Contrast ABO & Rh D Hemolytic Disease of New born (HDN). 10
7. a) Define window period in relation to current mandatory serological screening of transfusion transmissible infectious markers in our country. 5+5  
b) Describe strategies to decrease window period of transfusion transmitted infections (TTI).
8. a) Therapeutic Plasma Exchange [TPE]. 5+5  
b) Discuss type I & type II indications of TPE as per ASFA guidelines.
9. a) Enumerate Plasma volume expanders. 5+5  
b) Role of plasma expanders in management of shock.
10. a) What are different types of Red Cell Substitutes? 5+5  
b) Applications and limitations of Red Cell Substitutes in transfusion practice.

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