IMMUNOHEMATOLOGY & TRANSFUSION MEDICINE

PAPER - I

IMHT/D/13/15/I

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) Describe origin and differentiation of hematopoietic cells. b) Classify anemia according to underlying mechanisms.	5+5
2.	a) Complement cascade in health. b) Mechanism of complement mediated hemolysis.	5+5
3.	a) Give schematic illustration of common inheritance patterns. b) Describe general properties of autosomal recessive disorders.	5+5
4.	a) Human neutrophil antigen (HNA) system. b) Role of HNA antibodies in adverse effects of transfusion.	5+5
5.	a) Pathogenesis of different types of shock. b) Role of plasma volume expanders in hypovolemic shock.	5+5
6.	a) CFU – assay. b) F VIII : structure and function.	5+5
7.	a) Describe anticoagulant and preservative solution for red cells. b) Discuss clinical consequences of red cell storage lesions.	5+5
8.	a) Hypersensitivity reactions. b) Role of Type I hypersensitivity in transfusion reaction.	5+5
9.	Biowaste management in blood banks.	10
10.	a) Give schematic illustration of synthesis of ABH antigens: b) Discuss molecular basis of Bombay Phenotype.	5+5

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