

IMMUNOHAEMATOLOGY & BLOOD TRANSFUSION

PAPER-IV

IMBT/D/18/15/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. Describe the donor selection criteria as notified by the National Blood Transfusion Council in 2017. 10
2. a) What are the characteristics of mesenchymal stem cells? 5+5
b) Discuss therapeutic application of Mesenchymal stem cells.
3. Plasma fractionation technology. 10
4. Role or transfusion services in ABO incompatible kidney transplants. 10
5. a) Discuss the technologies for nucleic acid based testing for viral transfusion transmitted infections. 5+5
b) Procedure for documentation and discard of reactive blood units.
6. Role and advantage of Information technology in Blood transfusion service. 10
7. a) External Quality Assurance programs for blood banks. 5+5
b) Equipment management programme.
8. a) What are Universal red cells? 3+7
b) Discuss various methods to produce universal red cells.
9. Discuss challenges in implementation and achieving 100% voluntary non-remunerated and repeat blood donation in India. 10
10. Quality indicators in transfusion medicine. 10
