IMMUNOHEMATOLOGY AND BLOOD TRANSFUSION
PAPER-IV

Time: 3 hours IMHT/J/20/15/IV
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. What do you mean by "Near Miss Events"? Discuss various measures that can be taken to prevent incorrect blood component transfusion. 5+5

2. Explain important steps in setting up of as EQAS programme in your TTI testing lab. 10

3. What is RFID (Radio frequency identification) technology and describe various technologies that are available to prevent identification errors in transfusion chain. 4+6

4. What is hemovigilance? What are the prerequisites for setting hemovigilance in the country? 4+6

5. What is hospital information system (HIS) and blood bank information system? 5+5

6. a) Transcription Mediated Amplification (TMA) Technology. 5+5
   b) Advantages of TMA technology for Nucleic acid testing (NAT).

7. a) Platelet gel and its applications. 5+5
   b) Current status of clinical uses of Intravenous Immunoglobulins (Ivlg).

8. a) Chimeric Antigen Receptor (CAR) T cell. 5+5
   b) CAR-T cell therapy.

9. a) Stem Cell Plasticity. 5+5
   b) Induced pluripotent stem cell.

10. a) What are platelet derived growth factors? 5+5
    b) Discuss its clinical applications.

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