

IMMUNO-HEMATOLOGY AND BLOOD TRANSFUSION

PAPER-II

Time: 3 hours
Max. Marks:100

IMHT/D/19/15/II

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) Pathophysiology of blood donation and markers of iron deficiency in blood donors. 6+4
b) Period-specific interventions that could prevent syncopal reactions in blood donor.
2. a) What are the factors that contribute to pre-transfusion testing? 5+5
b) What is electronic crossmatching and how is it different from conventional cross-matching?
3. Explain the following during "Adverse Transfusion Reaction Reporting": 3+3+4
a) Case definition criteria.
b) Severity grade.
c) Imputability score.
4. Discuss the features that differentiate Transfusion Associated Acute Lung Injury (TRALI) from Transfusion Associated Circulatory Overload (TACO). 10
5. Therapeutic Plasma exchange – principle and indications. 5+5
6. a) How do you calculate and interpret "Corrected Count Increment" (CCI) following platelet transfusion? 5+5
b) Write down the various immunological and non-immunological causes of unsuccessful platelet increment.
7. a) Explain the concept of "Acute Normovolemic Hemodilution". 5+5
b) Add a note on "Intraoperative Autologous Blood Recovery and Reinfusion".

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| 8. | a) Principles of estimation of "Residual Risk" for Transfusion-transmissible infection with examples. | 6+4 |
| | b) Discuss about "Optimal titer of anti-HBs" in the context of safe utilization of blood components derived from donors with anti-HBc. | |
| 9. | Advantages and disadvantages of Type & Screen versus Type & Crossmatch. | 5+5 |
| 10. | Process of setting up an in-house 3-cell panel of antibody screening in your blood bank. | 10 |
