 NATIONAL BOARD OF EXAMINATIONS

CLINICAL HAEMATOLOGY

PAPER-II

Time: 3 hours
Max. Marks:100

HEMAT/D/20/48/II

Important Instructions:

- ***You are provided with 5 answer sheet booklets. Each individual answer sheet booklet consists of 10 pages excluding the covering jackets.***
- ***Answers to all the questions must be attempted within these 5 answer sheet booklets which must be later tagged together at the end of the exam.***
- ***No additional supplementary answer sheet booklet will be provided.***
- *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) Name different types of Leukocyte adhesion deficiency (LAD) and enumerate differences between them. 3+4+3
   b) Classical presentation and lab diagnosis of LAD.
   c) How will you manage a case of LAD?

2. a) Define Massive blood transfusion. 2+5+3
   b) Describe the transfusion pathophysiology and principles of massive blood transfusion.
   c) Low titer Group O whole blood in transfusion medicine practice.

3. a) Immunoglobulin gene rearrangement. 4+3+3
   b) Role of Natural Killer (NK) cells in the immune response of the human body.
   c) HLA restricted immune response.

4. a) What is leukemoid reaction? What are its causes? 3+4+3
   b) Benign morphological abnormalities seen in neutrophils.
   c) Cyclical neutropenia.

5. a) Criteria for donor selection for haplo-identical transplantation. 4+3+3
   b) Biomarkers for acute GVHD.
   c) Sinusoidal obstruction syndrome.

6. a) Characteristics and indications for various plasma products. 4+3+3
   b) Transfusion associated graft-versus-host disease.
   c) Diagnosis and management of platelet transfusion refractoriness.

P.T.O.

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7. a) Mention interaction of Monocytes and Macrophages with Platelets, Coagulation, and Fibrinolytic Cascades. 3+3+4
   b) Classify histiocytic disorders.
   c) Criteria for Hemophagocytic Lymphohistocytosis (HLH) in both children and adults.

8. a) Mention functions of Eosinophil. 5+5
   b) A 23-year-old male presents with a white cell count of 45000/cumm with 36% eosinophils. Describe the differential diagnosis, and evaluation algorithm of this patient?

9. a) Briefly describe Pathogenesis of Human Immunodeficiency Virus Infection. 4+3+3
   b) Describe the causes of anaemia in HIV infection.
   c) How will you manage anemia in HIV infection?

10. a) Biomarkers and management of acute graft versus host disease. 4+3+3
    b) Plerixafor salvage algorithms for Day minus 1 and Day Zero of harvest during stem cell transplant.
    c) Ruxolitinib in chronic GVHD.

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