

**HEMATOLOGY**

**PAPER – III**

HEMAT/J/17/48/III

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. Acute myeloid leukemia (AML): 4+4+2
  - a) Cytogenetics and molecular mutations, and their implications in its management.
  - b) Management of an elderly ( $\geq 65$  years) patient with AML.
  - c) MRD detection in AML.
2. Thrombosis: 3+2+5
  - a) What are causes of inherited thrombophilia?
  - b) What is INR?
  - c) Diagnosis and treatment of a case of acute pulmonary embolism.
3. Chronic lymphocytic leukemia: 3+3+4
  - a) How is this diagnosed?
  - b) Newer treatment options in refractory CLL?
  - c) Prognostic factors in CLL.
4. Lymphomas: 2+4+4
  - a) How to diagnose double hit and double expressing lymphoma?
  - b) Management of Angio-immunoblastic T cell lymphoma(AITL).
  - c) Current management of Hodgkin's Lymphoma.
5. Hemophilia A: 2+4+4
  - a) What are causative mutations in hemophilia A?
  - b) Managing knee replacement in hemophilia A.
  - c) Newer F VIII preparation.
6. Acute lymphoblastic leukemia (ALL): 3+3+4
  - a) MRD detection in ALL.
  - b) How does MRD determine the management of ALL?
  - c) Diagnosis and management of mixed phenotypic acute leukemia.

**P.T.O.**

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7. Multiple myeloma: 3+2+5  
a) Evolving diagnostic criteria.  
b) Prognostic factors.  
c) Management strategies.
8. Myelodysplastic syndrome: 3+3+4  
a) Prognostic scoring.  
b) Role of erythropoietin stimulating agents (ESA).  
c) Management of high risk MDS.
9. Anticoagulant therapy: 4+3+3  
a) Monitoring of anticoagulant therapy.  
b) Newer anticoagulants.  
c) Heparin resistance.
10. Haploidentical stem cell transplantation: 2+4+2+2  
a) What is this and its concept?  
b) T cell replete versus T cell depleted haploidentical stem cell transplantation.  
c) What are donor specific antibodies (DSA), how they are detected and their relevance in haploidentical stem cell transplantation?  
d) What are National and International HLA registries available in India?

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