

FINAL EXAM  
JUNE 2018

NATIONAL BOARD OF EXAMINATIONS

## HEMATOLOGY

## PAPER-III

HEMAT/J/18/48/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. Minimal residual disease (MRD): 5+5
  - a) What is the basis of MRD?
  - b) How does monitoring of MRD in acute leukemia guide the management?
2. Describe the uses of flow cytometry: 5+5
  - a) In benign haematological disorders.
  - b) In classifying chronic lymphoproliferative disorders.
3. Autologous stem cell transplantation: 3+3+4
  - a) Describe the procedure.
  - b) Enumerate differences from allogenic stem cell transplantation.
  - c) Clinical conditions where this procedure is being used.
4. Targeted therapies: 5+5
  - a) Which are the hematological conditions where it is in clinical use?
  - b) Describe monitoring of patients in any one condition in clinical use.
5. Next Generation Sequencing (NGS) for Acute Myeloid Leukemia: 5+5
  - a) Describe the advantages.
  - b) Which molecular changes have prognostic significance?
6. Non-Hodgkin's lymphoma (NHL): 4+4+2
  - a) Briefly classify the NHLs as per the WHO Classification 2016.
  - b) What are the diagnostic tests performed in a patient to stage the disease?
  - c) How is the management monitored on follow up?
7. Hemophilia A and B: 3+4+3
  - a) What is prophylactic therapy?
  - b) How is an acute major joint bleed managed?
  - c) Carrier detection in hemophilia A.

P.T.O.

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|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 8.  | Secondary hematological malignancies:<br>a) Describe the conditions associated.<br>b) Prognosis and management issues which need to be addressed.                                                                                            | 5+5 |
| 9.  | Conditioning regimens for allogenic bone marrow transplantation:<br>a) Enumerate the differences between benign and malignant disorders.<br>b) Peripheral versus bone marrow harvesting.                                                     | 5+5 |
| 10. | Chemotherapeutic drugs used in acute lymphoblastic leukemia (ALL):<br>a) Describe the principles of chemotherapeutic drugs being used in induction phase.<br>b) Describe the common toxicities encountered with drugs used in ALL induction. | 5+5 |

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