

FINAL EXAM  
JUNE 2018

NATIONAL BOARD OF EXAMINATIONS

## PATHOLOGY

## PAPER-IV

PATH/J/18/32/IV

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.  | a) Biochemical basis of megaloblastic anaemia.<br>b) Pathogenesis of anaemia of chronic disorders.  | 5+5 |
| 2.  | a) Flow cytometric evaluation of chronic lymphoproliferative diseases.<br>b) Qualitative defects of platelets and their diagnosis.                | 5+5 |
| 3.  | a) Diagnostic criteria of multiple myeloma<br>b) Indications and interpretation of bone marrow trephine biopsy.                                   | 5+5 |
| 4.  | a) Hemophagocytic syndromes<br>b) Lab findings and diagnostic criteria in antiphospholipid antibody syndrome.                                     | 5+5 |
| 5.  | a) Prognostic factors of acute lymphoblastic leukemia<br>b) Enumerate tyrosine kinase receptor mutations in chronic myeloproliferative disorders. | 5+5 |
| 6.  | a) Molecular pathogenesis of $\beta$ thalassemia.<br>b) Classification and laboratory findings in immune haemolytic anaemia.                      | 5+5 |
| 7.  | a) Indications for use of blood components.<br>b) Immunological transfusion reaction.   | 5+5 |
| 8.  | a) Causes and diagnostic approach to neutropenia.<br>b) Apheresis   | 5+5 |
| 9.  | a) Laboratory findings in hairy cell leukemia.<br>b) Pathology & pathophysiology of acquired thrombotic thrombocytopenic purpura.                 | 5+5 |
| 10. | a) Genetic basis of hemochromatosis.<br>b) Pathogenesis of myelodysplasia.  | 5+5 |

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