

**PATHOLOGY**

**PAPER – IV**

Time : 3 hours  
Max. Marks : 100

PATH/D/17/32/IV

**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) Recent diagnostic criteria for multiple myeloma. 5+5  
b) Clinical use of hematopoietic growth factors
2. a) Genetic basis of hypercoagulability 5+5  
b) Utility of peripheral smear evaluation in era of hematology automation
3. a) Describe fibrinolysis and discuss hyperfibrinolytic states 5+5  
b) Pathogenesis and diagnosis of paroxysmal nocturnal hemoglobinuria.
4. a) Etiopathogenesis of pure red cell aplasia 5+5  
b) Role of hepcidin in diagnosis of iron disorders.
5. a) Normal human hemoglobins 5+5  
b) Laboratory diagnosis of anti-phospholipid syndromes
6. a) Peripheral blood and bone marrow findings in Hairy cell leukemia and its variants 5+5  
b) Antenatal screening for hemolytic disease of new born
7. a) Automated reticulocyte parameters and their use in hematology 5+5  
b) Congenital morphological anomalies of leucocytes.
8. a) Laboratory evaluation of peripheral blood lymphocytosis in a 68 years old male patient. 5+5  
b) Harmful effects of stored blood transfusion
9. a) Pathogenetic classification of platelet function defects 5+5  
b) Laboratory monitoring of antithrombotic drugs
10. a) Mixed phenotype acute leukemia 5+5  
b) Laboratory investigations in a case of red cell fragmentation syndrome