

FINAL EXAM  
JUNE 2013

NATIONAL BOARD OF EXAMINATIONS

**PATHOLOGY****PAPER –II****PATHO/J/13/32/II****Time : 3 hours****Max. Marks : 100****Attempt all questions in order.  
Each question carries 10 marks.**

1. Define and classify anemia of chronic disease. What is its pathogenesis and management. 5+5
2. Classify immune hemolytic anemia. Discuss the pathogenesis of warm and cold antibody type autoimmune hemolytic anemias. Discuss in brief Immunologic tolerance. 1+4+5
3. Enlist various diseases under the category of chronic lympho-proliferative disorders. Give the role of flow-cytometry with the panel of markers required for diagnosis and detection of residual disease. 4+6
4. Discuss the principle behind the working of semi automated, fully automated and five part differential blood cell counters. 3+3+4
5. Describe and classify functional disorders of leukocytes. What are their clinico-pathologic features and diagnostic modalities? 5+5
6. Describe the diagnostic criteria for multiple myeloma and MGUS. What is monoclonal gammopathy of renal significance? 8+2
7. Give the diagnostic algorithm in a patient of bleeding disorder. What are the various qualitative platelet defects and how are they diagnosed? 6+4
8. Give the WHO classification of myeloproliferative neoplasms. Which are the molecular markers used for diagnosis of these disorders. Give the pathogenesis and morphology of primary myelofibrosis. 1+3+6
9. What is the role of nucleic acid testing (NAT) laboratory in Transfusion Medicine? Discuss in brief Hemolytic Transfusion Reactions. 5+5
10. How will you diagnose a case of acute myelomonocytic leukemia? Discuss the prognostic factors of acute lymphoblastic leukemia. 5+5

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