

**M.D. DEGREE EXAMINATION**

**BRANCH III – PATHOLOGY**

**PAPER IV – IMMUNOPATHOLOGY, HAEMATOLOGY, PRINCIPLES  
AND APPLICATION TO TECHNOLOGICAL ADVANCES  
IN LABORATORY SERVICES**

*Q.P. Code: 202013*

**Time : Three Hours**

**Maximum : 100 Marks**

**I. Essay:**

**(2 x 15 = 30)**

1. Define and classify Myelodysplastic syndrome. Discuss the etiopathogenesis. Describe peripheral blood and bone marrow findings.
2. Discuss in detail the mechanism of Immunologically mediated diseases. Write about Immune complex mediated hypersensitivity. Describe transplant rejection.

**II. Write Short Notes on:**

**(10 x 5 = 50)**

1. Stains used in cytology.
2. Cryoprecipitate.
3. Polymerase chain reaction.
4. Bethesda system of reporting for FNAC thyroid.
5. Burkitt lymphoma.
6. Sezary syndrome.
7. Cytospin.
8. Telepathology.
9. Immunology of leprosy.
10. Myelofibrosis.

### III. Reasoning Out:

(4 x 5 = 20)

1. A 50 year old male presented with moderate splenomegaly, fever and hailing from North – East India. What is the probable peripheral smear and Bone marrow finding? What is your diagnosis?
2. A 58 year old lady with complaints of low back pain, was found to have multiple osteolytic lesions and anaemia. Bone marrow aspiration was done. Serum electrophoresis was advised. Discuss the diagnostic criteria and prognostic factors of this condition.
3. 2 years old child had severe anaemia with massive spleen. Peripheral smear showed numerous target cells and microcytes with nucleated RBCs. Discuss the etiopathogenesis of this condition.
4. A 10 year old boy presented with osteolytic lesion in the skull and skin nodules. FNAC of the skin nodule showed plenty of eosinophils and histiocytes. What is the probable diagnosis? Discuss the classification and syndromes associated.

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