[LE 116] **APRIL 2014** **Sub. Code: 2013**

M.D. DEGREE EXAMINATION
BRANCH III – PATHOLOGY
IMMUNOPATHOLOGY, HAEMATOLOGY, PRINCIPLES AND APPLICATIONS TO TECHNOLOGICAL ADVANCES IN LABORATORY SERVICES
Q.P. Code :202013

Time : Three Hours **Maximum : 100 marks**

I. Essay: **(2X10=20)**

1. What is the pathogenesis of autoimmunity? Discuss the etiopathogenesis, morphology and complication of SLE.

2. What are the technical advances in bone marrow pathology? Discuss the implication of WHO classification in the marrow diagnosis of myeloid neoplasia.

II. Write short notes on: **(8X5=40)**

1. Clinicopathologic perspective of palpable thyroid nodules.
2. Role of IHC in diagnosing tubal metaplasia vs endometriosis.
3. Morphological abnormalities in Neutrophils.
4. Discuss effect of EBV in AIDS.
5. What are the conditions leading to myelofibrosis?
6. Immune mediated haemolytic anaemias.
7. Give the WHO classification of myelodysplastic syndrome.
8. What is microsatellite instability? What is its relation to neoplasia?

III. Reasoning Out: **(4X5=20)**

1. 2 years old child had severe anaemia with massive spleen. Peripheral smear showed numerous target cells and microcytes with nucleated RBCs.

    a. What is the probable diagnosis?
    b. What is the confirmatory lab test?

2. 50 years old male presented with generalized lymphadenopathy and hepatosplenomegaly. Peripheral smear showed rouleaux formation and spherocytes.

a. Give your differential diagnosis.
b. What is the role of Coombs test in the diagnosis?

3. 7 years old child presented with generalized lymphadenopathy, hepatosplenomegaly and medisatinal mass. Peripheral smear showed increased WBC count (1,20,000 cells/cu.mm) with blasts forming 80%.

    a. What will be the type of blast?
    b. What is the probable immunophenotype?

4. Peripheral smear of a child with progressive ataxia showed numerous acanthocytes and few nucleated RBCs.
    a. What is your diagnosis?
    b. What should be the percentage of acanthocytes?

IV. Very Short Answers: (10X2=20)

1. What are HIFs?
2. Name the IHC marker used to differentiate reactive condition is from neoplasm.
3. What is external quality assurance?
4. Name stains for Melanin.
5. Name new technologies in PAP cytology.
6. What do you understand by gene expression profile?
7. Cytochemistry of megakaryocytic leukemia.
8. Types of nerve biopsy preparations.
9. Carnoy's fixative.
10. What is haemolytic uremic syndrome?

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