

[LP 116]

OCTOBER 2019

Sub. Code: 2013

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. Discuss briefly Molecular profiling of Osteoarticular Neoplasms. Discuss the Clinicopathological features of Osteoclast rich Bone tumours.
2. What is Liquid based cytology? Describe the two common systems used for Liquid based cytology. Enumerate the advantages of Liquid based cytology when compared to conventional cytology?

II. Write Short Notes on:

(10 x 5 = 50)

1. Congenital Dyserythropoietic Anaemia.
2. Monoclonal Gammopathy.
3. Haematogones.
4. Autologous blood transfusion.
5. Natural inhibitors of coagulation.
6. Disorders of JAK2 mutation.
7. Automation in urine analysis.
8. Comparative Genomic Hybridisation.
9. Significance of blood indices in clinical hematology.
10. Waldenstrom Macroglobulinemia.

(2)

III. Reasoning Out:

(4 x 5 = 20)

1. 5 year old male child with a history of bloody diarrhea presented with anaemia, jaundice, oliguria, haemoglobinuria, proteinuria and purpura. Peripheral smear examination showed polychromasia, nucleated RBCs, fragmented red blood cells and thrombocytopenia. Biochemical examination revealed increased unconjugated bilirubin, lactate dehydrogenase, urea and serum creatinine levels. What would be the diagnosis and describe its pathogenesis?
2. 30 year male presented with headache, dizziness and intense pruritis. On examination he appeared plethoric and cyanotic. His haemoglobin was 20 gm/dl, haematocrit 60%, WBC count 20,000 cells / cumm and platelets 5 lakhs per cumm. What would be the diagnosis and describe its pathogenesis.
3. 50 year male presented with generalized lymphadenopathy, hepatosplenomegaly and polyp like lesions of colon. Histopathological examination of the enlarged lymphnodes showed homogenous population of lymphocytes with Immunophenotype CD 19+, CD 20 +, CD 5 + and CD 23 negative. What is the diagnosis? Describe its pathogenesis.
4. 25 year female presented with epistaxis and menorrhagia. Investigations revealed normal platelet count, prolonged bleeding time, prolonged Partial Thromboplastin Time and reduced Ristocetin cofactor activity. What would be the diagnosis? Describe its pathogenesis and prognosis.
