- 1. Lupus nephritis Classification of pathology.
- 2. Myopericytoma
- 3. Pancreatic intraepithelial neoplasia & intraductal papillary mucinous neoplasms
- 4. Pathology of Alzheimer disease
- 5. Histological predictors in chronic ulcerative colitis
- 6. Arias stella reaction
- 7. Cardiac tumors
- 8. Interstital lung diseases
- 9. Non alcoholic fatty liver disease
- 10. Granulomatous inflammations in thyroid

- 1. Haematopoietic stem cells.
- 2. Inherited risk factors for thrombophilia.
- 3. Immunophenotypic diagnosis of chronic lymphoproliferative disorder.
- 4. Paroxysmal nocturnal haemoglobinuria.
- 5. Fluorescent in-situ hybridization.
- 6. Graft versus host disease.
- 7. Prion diseases and blood safety.
- 8. Anemia of chronic disease.
- 9. Assessment of feto-maternal hemorrhage.
- 10. Thrombotic thrombocytopenic purpura.

- 1. Pap Net system.
- 2. Cytology of organ transplant.
- 3. High profile liquid chromatography in hemolytic anemia.
- 4. Laboratory diagnosis of myocardial infarction.
- 5. Quality control in immunohistochemistry.
- 6. Cytogenetic analysis of hematological neoplasms.
- 7. Utility of thyroid function tests in cytodiagnosis of thyromegaly.
- 8. New diagnostic methods of human papilloma virus.
- 9. Automated sperm analysis.
- 10. Acute phase reactants.

- 1. Genetic factors in apoptosis.
- 2. Immunologic tolerance.
- 3. Interphase cytogenetics.
- 4. Markers of cell proliferation.
- 5. Mechanisms of cellular aging.
- 6. Angioneurotic edema.
- 7. Para neoplastic syndromes.
- 8. Pathogenesis of complications of diabetes.
- 9. Pseudo hyperparathyroidism.
- 10. Genomic instability syndromes.

- 1. Differential diagnosis of giant cell lesions of bone.
- 2. Preneoplastic lesions of skin.
- 3. Classify and discuss pathogenesis of diffuse interstitial lung disease.
- 4. Benign nodular lesions of liver.
- 5. Crescenteric glomerulonephritis
- 6. Role of immunohisto-chemistry in diagnosis of lymphomas.
- 7. Placental site trophoblastic lesions.
- 8. Transmissible spongiform encephalopathies.
- 9. Role of markers in diagnosis and prognosis of breast cancer.
- 10. Malakoplakia.

- 1. Classify myeloproliferative neoplasms and discuss the genetic and molecular alterations in them.
- 2. Role of immunofluorescence in diagnosis of bullous lesions of skin.
- 3. Mechanism of iron absorption.
- 4. Prognostic factors in Acute Lymphoblastic Leukemia.
- 5. Red cell substitutes.
- 6. Classification and diagnosis of alpha thalassemias.
- 7. Hereditary thrombophilic disorders.
- 8. Hematological manifestations of HIV infection.
- 9. Pathogenesis of autoimmune hemolytic anemias.
- 10. Waldenstrom's macroglobulinemia.

- 1. Confocal microscopy.
- 2. Role of urinary sediment in diagnosis of various diseases.
- 3. Discuss the various methods for diagnosis of malaria. Give a brief account of development of malaria vaccine.
- 4. Bronchoalveolar lavage in diagnosis of non-neoplastic diseases of lung.
- 5. Outline approach for making diagnosis on findings suggestive of epithelial-myoepithelial proliferations in FNA smears.
- 6. How would you proceed to diagnose a case of mal-absorption syndrome?
- 7. Classify atypical mycobacteria and the lesions produced by them.
- 8. Bathesda system.

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- 9. Automation in cytology.
- 10. Differential diagnosis of thyroiditis.

- 1. Genetic instability and cancer.
- 2. Discuss etiology, pathophysiology and diagnosis of iron storage disorders.
- 3. Mechanisms of autoimmune diseases.
- 4. Metabolic Syndrome.
- 5. Role of stem cells in tissue homeostasis.
- 6. Angiogenesis in malignancies
- 7. Pathogenesis of renal osteodystrophy.
- 8. Disorders of the dendritic cells.
- 9. Patho-physiology and diagnosis of juvenile diabetes.
- 10. Proteomics- its role in diagnosis of various diseases.

- 1. Enumerate and describe in brief Osteo-chondroformative tumors of soft tissues.
- 2. Describe artiopathogenesis of Adult respiratory distress syndrome.
- 3. Discuss the differential diagnosis of cutaneous lymphoid infiltrate.
- 4. Sentinel lymph node and its evaluation by pathologist.
- 5. Describe pathology and laboratory evaluation of CNS manifestations of
- 6. Discuss the etiopathogenesis and morphology of non-alcoholic steatohepatitis (NASH).
- 7. Discuss clinical, histological and molecular progression of oral cancer.
- 8. Define Autosomal Dominant Polycystic Kidney disease. Discuss its pathogenesis and morphology.
- 9. Discuss the role of microbial agents in pathogenesis of atherosclerosis.
- 10. Enumerate functionally active tumors of ovary and describe their morphology

- 1. Describe functional disorders of leucocytes and their laboratory diagnosis.
- 2. Discuss etiopathogenesis and lab diagnosis of pure red cell aphasia (PRCA).
- 3. Describe aetiopathogenesis and morphology of lesions mediated by Antibasement antibodies of IgG type.
- 4. Discuss Single Donor Platelets Versus Random Donor platelets.
- Classify haemoglobinopathies. Discuss the epidemiology and diagnosis of HbD disease.
- 6. Role of T-cell receptor glue in classification of chaematolymphoid neoplasm.
- 7. Enumerate Gel Electrophoretic techniques and their utility in the diagnosis of hematological disorders.
- 8. Define, classify and discuss the approach to diagnose Haemophagocytic syndrome and their etiology.
- 9. Describe genetic basis of Von Willebrand disease its variants and their diagnosis.
- 10. Compare bone marrow stem cell transplantation with cord blood stem cell transplantation.

- 1. Describe technical methods used for evaluation of semen analysis and interpretation of abnormal reports.
- 2. Role of Bronchioloalveolar Lavage in diagnosis of benign disorders of lung.
- Describe step wise approach for CSF examination and role of cytocentrifuge in its evaluation.
- 4. Write short note on role and application of cytology as predictive of prognosis in human diseases.
- 5. Discuss differential diagnosis of epithelioid cell collections in cytology.
- 6. Discuss indications and techniques for cytological evaluation of the hormonal status. Describe interpretation of results and correlation with serological tests.
- 7. Discuss the techniques of intra operative cytology and compare it with frozen section.
- 8. Discuss role of automation in cytology and comment upon tele cytology.
- 9. Discuss the various molecular techniques applicable in diagnostic pathology.
- 10. Describe the laboratory work up of complications of diabetes mellitus.

- 1. Discuss pathology of various lesions causes by atypical mycobacterium.
- 2. Pathophysiology of osteoporosis.
- 3. Role of Adhesion Molecules in human diseases.
- 4. Laboratory diagnosis of genetic diseases.
- 5. Pathophysiology of ageing.
- 6. Growth factors and cytokines involved in regeneration and wound healing.
- 7. Describe classification, pathogenesis and diagnosis of amyloidosis.
- 8. Mechanism of radiation in carcinogenesis and various radiation induced cancers.
- 9. Tumor suppressor gene.
- 10. Pathophysiology of septic shock.