

Roll no.

P-2684

M.D. EXAMINATION, APRIL, 2008

M.D. – PATHOLOGY

(Paper - I)

(General Pathology, Haematology, Clinical Pathology, Blood Banking)

Time : 3 hours

Maximum Marks – 100

Note : Attempt all questions in the same serial order. Draw labeled diagrams and flow charts wherever Necessary. Be precise and to the point.

1. Discuss pathophysiology of oedema. 25 marks
2. Discuss pathogenesis of anemia in chronic disorders. 25 marks
3. Write briefly about : 10 marks each
 - (a) Hypereosinophilic syndrome
 - (b) Laboratory diagnosis of cryptococcal meningitis
 - (c) Clinical application of lipid profile tests
 - (d) Tumor associated amyloidosis
 - (e) National blood policy

Roll no.

P-2685

M.D. EXAMINATION, APRIL, 2008

M.D. – PATHOLOGY

(Paper – II)

(Systemic Pathology)

Time : 3 hours

Maximum Marks – 100

Note : Attempt all questions in the same serial order. Draw labeled diagrams and flow charts wherever Necessary. Be precise and to the point.

1. ✓ Discuss and describe metabolic bone diseases. 26 marks
2. Write briefly on the following :
 - ✓ (a) Role of H.Pylori in gastric pathology 13 marks
 - (b) Histological types of carcinoma breast 13 marks
3. Write short notes on any three of the following : 24 marks (8 each)
 - (a) CIN
 - (b) Maltoma
 - (c) Functional ovarian neoplasms
 - (d) Diabetic ocular lesions
4. Comment on any three of the following : 24 marks (8 each)
 - ✓ (a) ✓ Childhood renal neoplasms ✓
 - (b) Astrocytoma
 - (c) HCV and Hepatitis
 - (d) Aschoff's nodule

Roll no.

P-2686

M.D. EXAMINATION, APRIL, 2008

M.D. – PATHOLOGY

(Paper - III)

(Recent Advances in Pathology, Haematology and Clinical Pathology)

Time : 3 hours

Maximum Marks – 100

Note : Attempt all questions in the same serial order. Draw labeled diagrams and flow charts wherever Necessary. Be precise and to the point.

- | | | |
|------|--|----------|
| 1. ✓ | Discuss pathology and pathogenesis of Rheumatic heart disease. | 25 marks |
| 2. ✓ | Discuss pathological diagnosis of Granulomatous lung disease. | 25 marks |
| 3. | Describe newly recognized entities of salivary gland pathology. | 10 marks |
| 4. | Discuss role of cytology in ophthalmic lesions. | 10 marks |
| 5. | Describe advances in pathology of COPD. | 10 marks |
| 6. ✓ | Describe haematological changes in HIV infections. | 10 marks |
| 7. | Describe in short new techniques in histopathology using Non In Situ methodology for detecting gene alterations. | 10 marks |
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Roll No.

P-13

M. D. EXAMINATION, April/May, 2009

PATHOLOGY

Paper First

(General and Applied Pathology)

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt all questions.

1. Describe the etiopathogenesis, pathology and diagnosis of systemic lupus erythematosus. 25
2. Discuss the screening for early diagnosis of diabetes mellitus and diagnostic indicators of long-term glycemic control. 25
3. Explain immunological tolerance. 10
4. Discuss mechanisms of cellular aging. 10
5. Write defects in leucocyte function. 10
6. Explain septic shock. 10
7. Discuss genomic imprinting. 10

Roll No.

P-14

M. D. EXAMINATION, April/May, 2009

PATHOLOGY

Paper Second

(Systemic Pathology)

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt all questions.

1. Discuss gastrointestinal stromal tumours (GIST) and describe the prognosis compared to other tumours of GI tract. 25
- ✓ 2. Non-alcoholic fatty liver. 25
3. Explain cutaneous lymphomas and pseudolymphomas. 25
4. Explain the following :
 - ✓ (a) Role of apoptosis in neoplasias 9
 - (b) Recent classification of CNS tumours 8
 - ✓ (c) Microwave tissue processing 8

M. D. EXAMINATION, April/May, 2009

PATHOLOGY

Paper Third

(Hematology, Cytology, Blood Banking and Clinical Pathology)

Time : Three Hours]

[Maximum Marks : 100

Note : Answer all questions. Draw labelled diagrams where necessary.

1. (a) Discuss approach to a suspected case of Hemolytic Anaemia. 13
(b) Explain Myelodysplastic Syndromes. 12
2. (a) Discuss role of platelet function tests in clinical practise. 13
(b) Discuss Pulmonary Cytology. 12
3. Describe Apheresis and its clinical application. 10
4. Discuss in detail. Squash smear cytology in Glial tumor. 10
5. Write about Immunomarkers in diagnosis of Leukemia. 10
6. Write short notes on the following : 5 each
(i) ESR (ii) LAP Score
7. Describe briefly the following : 5 each
(i) Flow cytometry in Hematology
(ii) Pregnancy test

Roll No.

P-16

M. D. EXAMINATION, April/May, 2009

PATHOLOGY

Paper Fourth

(Recent Advances)

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt all questions.

1. Discuss approach to diagnosis of Granulomatous Lung
✓ Disease. 25
2. Discuss pathology and pathogenesis of rheumatic heart
✓ disease. 25
3. Discuss classification and cytodiagnosis of Pleomorphic Soft
✓ Tissue Tumors. 10
4. Give an account of current concepts in pathological
✓ diagnosis of Malabsorption. 10
5. Explain the use of Immunohistochemistry in interpretation
✓ of prostate biopsy. 10
6. Discuss pathogenesis and pathology of Brain Abscess. 10
7. Discuss metaplasias in female Genital tract. 10

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POST GRADUATE DEGREE EXAMINATION, APRIL- 2011

MD PATHOLOGY

(PAPER ONE)

GENERAL & APPLIED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

- Q. 1. Enumerate small round cell tumours of childhood and discuss the role of immunohistochemistry in solving problems of differential diagnosis? (20)
- Q. 2. Define transplant rejection. Describe the pathogenesis, clinical features and morphology of acute and chronic rejection. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. Lysosomal storage diseases.
 - b. Angiogenesis.
 - c. Laboratory diagnosis of malaria.
- Q. 4. Write short notes on: (5 x 6 = 30)
- a. Indications of Frozen section.
 - b. Oncogenic viruses.
 - c. Liquid- based cytology.
 - d. Sources of embryonic stem cells.
 - e. Biospecimen banking.

POST GRADUATE DEGREE EXAMINATION, APRIL- 2011

**MD PATHOLOGY
(PAPER TWO)**

SYSTEMIC PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

- Q. 1. ✓ Discuss the pathology & pathogenesis of atherosclerosis. (20)
- Q. 2. Discuss in detail the lab diagnosis of haemolytic anemias. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. Etiopathogenesis of peptic ulcer.
 - b. Lab diagnosis of diabetes mellitus.
 - c. Serological markers in hepatitis.
- Q. 4. Write short notes on: (5 x 6 = 30)
- a. Prognostic markers in carcinoma breast.
 - b. ✓ IgA nephropathy.
 - c. ✓ Reed – Sternberg cell & its variants.
 - d. ✓ Interpretation of muscle biopsy.
 - e. Small cell carcinoma lung.

POST GRADUATE DEGREE EXAMINATION, APRIL- 2011

MD PATHOLOGY

(PAPER THREE)

HAEMATOLOGY, BLOOD BANKING, CYTOLOGY & CLINICAL PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

- Q. 1. ✓ Discuss approach to a case of bleeding disorder. (20)
- Q. 2. Discuss role of cytology in diagnosis of salivary gland lesions. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. ✓ Apheresis
 - b. ✓ Transfusion reactions
 - c. ✓ Pulmonary cytology
- Q. 4. ✓ Write short notes on: (5 x 6 = 30)
- a. LAP score
 - b. Stem cell transplantation
 - c. G6PD estimation and its clinical importance.
 - d. ELISA
 - e. ✓ Non secretory myeloma

POST GRADUATE DEGREE EXAMINATION, APRIL- 2011**MD PATHOLOGY****(PAPER FOUR)****RECENT ADVANCES & THEIR CLINICAL APPLICATION**

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

- Q. 1. ✓ Discuss genetic changes in tumor microenvironments. (20)
- Q. 2. ✓ Discuss predictive and prognostic molecular markers in breast cancer. (20)
- Q. 3. ✓ Describe briefly: (3 x 10 = 30)
- a. ✓ Non-alcoholic fatty liver disease.
 - b. ✓ Diagnostic approach to fine needle aspiration cytology of mediastinal tumors.
 - c. ✓ Problems and pitfalls of assisted reproductive techniques.
- Q. 4. ✓ Write short notes on: (5 x 6 = 30)
- a. ✓ Biology of ageing brain
 - b. ✓ Gastrointestinal stromal tumours
 - c. ✓ Role of immunochemistry in problematic prostate biopsy.
 - d. ✓ Endometrial intraepithelial neoplasia.
 - e. ✓ NAT.

POST GRADUATE EXAMINATION, APRIL- 2012

**MD PATHOLOGY
(PAPER ONE)**

GENERAL & APPLIED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagnosis.

- Q. 1.** Define apoptosis. Describe the morphology, biochemical basis and mechanism of apoptosis. (20)
- Q. 2.** Discuss in detail the mechanism of tumor invasion and metastasis. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Defects in leukocyte functions
 - b. Immunologic tolerance & its different types
 - c. Pathogenesis of deep venous thrombosis
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Sperm function tests
 - b. Microwave Processing
 - c. Fluorescent method for mycobacterium bacilli
 - d. Non-neoplastic diseases in smokers
 - e. Robertsonian translocation

POST GRADUATE EXAMINATION, APRIL- 2012**MD PATHOLOGY
(PAPER TWO)****SYSTEMIC PATHOLOGY**

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagnosis.

- Q. 1. ✓ Define cirrhosis. Enumerate the causes of cirrhosis. Describe the method of evaluation of core biopsy of liver in cirrhosis. (20)
- Q. 2. Define myelodysplastic syndrome. Discuss the classification, pathogenesis and prognostic factors of myelodysplastic syndromes. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- ✓ a. Pathogenesis and Pathology of Hirschsprung disease.
 - ✓ b. Diffuse interstitial disease of the Lung.
 - ✓ c. Pan Ins (Pancreatic Intraepithelial Neoplasia)
- Q. 4. Write short notes on: (5 x 6 = 30)
- ✓ a. Pathological changes in Rheumatic heart disease.
 - ✓ b. Gleason grading system of prostatic cancer.
 - ✓ c. Malignant Nephrosclerosis.
 - ✓ d. Hashimoto thyroiditis.
 - ✓ e. Pathogenesis of Prion disease.

POST GRADUATE EXAMINATION, APRIL- 2012

**MD PATHOLOGY
(PAPER THREE)**

HAEMATOLOGY, BLOOD BANKING, CYTOLOGY & CLINICAL PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagnosis.

- Q. 1.** Discuss cytodiagnosis of thyroid lesions. (20)
- Q. 2.** Classify and discuss lab diagnosis of Acute Leukemias. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- ☒ a. Cytology of "Benign Breast Disease"
 - ☒ b. Extramedullary Erythropoiesis
 - ☒ c. Screening for transfusion transmitted diseases
- Q. 4.** Write short notes on: (5 x 6 = 30)
- ☒ a. Lab diagnosis of Ischaemic heart disease.
 - ☒ b. Plasmapheresis
 - c. Renal function tests
 - d. Semen examination
 - e. Lab diagnosis of haemolytic anaemia

POST GRADUATE EXAMINATION, APRIL- 2012
MD PATHOLOGY
(PAPER FOUR)
RECENT ADVANCES & THEIR CLINICAL APPLICATIONS

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagnosis.

- Q. 1.** Discuss genetic changes in AML. (20)
- Q. 2.** Discuss the role of Kidney biopsy in glomerular diseases. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Role of immunohistochemistry in prostate biopsies.
 - b. Problems and pitfalls of assisted reproductive techniques.
 - c. Atypical squamous cells in cervical pap smears.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Role of automation in day to day practice.
 - b. Biology of ageing.
 - c. BAL and brush cytology in bronchial lesions.
 - d. Quality control in Histopathology.
 - e. Telepathology.

POST GRADUATE EXAMINATION, MAY- 2013

**MD PATHOLOGY
(PAPER ONE)**

GENERAL & APPLIED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Describe tissue responses to damage. Discuss exogenous and endogenous mediators of acute inflammation. (20)
- Q. 2.** Define Neoplasia. Describe molecular basis of cancer and multistep theory of carcinogenesis. Discuss importance of grading and staging of tumors. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- Types of fixatives and factors affecting fixation.
 - Laboratory quality contract: Basic issues.
 - Immunodeficiency diseases.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- Techniques and limitations of frozen sections.
 - Polymerase chain reaction (PCR): Principles and its applications.
 - Cells involved in active and passive immunity.
 - Enumerate and discuss different pathology related with circulatory disturbances.
 - Stains used for the confirmation of different types of pigments.

POST GRADUATE EXAMINATION, MAY- 2013

MD PATHOLOGY

(PAPER TWO)

SYSTEMIC PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Classify thalassemia syndromes. Write in brief about molecular pathogenesis and morphology of β thalassemias. (20)
- Q. 2.** Classify vasculitis and describe in brief ANCA associated vasculitis. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- Pathogenesis of bullous diseases of skin.
 - Role of intestinal biopsy in diagnosis of malabsorption.
 - Cystic lesions of the neck.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- IgA Nephropathy
 - X- linked muscular dystrophy.
 - Pleural tumors.
 - Gary zone lesions of breast.
 - High grade non Hodgkin's lymphoma

POST GRADUATE EXAMINATION, MAY- 2013

MD PATHOLOGY
(PAPER THREE)

HAEMATOLOGY, BLOOD BANKING, CYTOLOGY & CLINICAL PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1. ✓ Discuss cytodiagnosis of breast lesions. (20)
- Q. 2. ✓ Classify paraproteinemias. Discuss lab. Diagnosis of multiple myeloma. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. ✓ Objective scoring in semen analysis.
 - b. ✓ Coomb's test
 - c. ✓ Extramedullary erythropoiesis
- Q. 4. Write short notes on: (5 x 6 = 30)
- a. Painless hematuria
 - b. Sezery syndrome
 - c. ✓ Lab diagnosis of UTI
 - d. ✓ Tumor markers of prostate
 - e. ✓ Pregnancy test

POST GRADUATE EXAMINATION, MAY- 2013

MD PATHOLOGY

(PAPER FOUR)

RECENT ADVANCES & THEIR CLINICAL APPLICATIONS

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Discuss Lympho-proliferative lesions associated with Epstein-Barr Virus. (20)

Q. 2. Discuss Genetics of colon carcinoma. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Merits, demerits and principle of NAT testing in the screening of a blood unit.
- b. Inter-relationship of RDW, absolute blood indices and serum ferritin in Anemias.
- c. Discuss assisted reproductive techniques and their pitfalls.

Q. 4. Write short notes on: (5 x 6 = 30)

- a. P.I.N. and mimics of prostatic carcinoma.
- b. Quality control in blood banking
- c. AgNOR
- d. Non alcoholic steato- Hepatitis
- e. Acute phase reactants

X

POST GRADUATE EXAMINATION, SEPTEMBER- 2013

**MD PATHOLOGY
(PAPER ONE)**

GENERAL & APPLIED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams if required.

- Q. 1.** Define inflammation and discuss the cell derived chemical mediators of acute inflammation. (20)
- Q. 2.** Define shock. What are its types and discuss the etiopathogenesis of septic shock? (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Paraneoplastic syndrome
 - b. What is autosomal dominant inheritance? Name the diseases associated with it.
 - c. Acute respiratory distress syndrome.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Pathogenesis of AIDS
 - b. Role of P 53 oncogene in cancer diagnosis
 - c. Fragile X- syndrome
 - d. Free radical injury
 - e. Prion disease

POST GRADUATE EXAMINATION, SEPTEMBER- 2013

MD PATHOLOGY

(PAPER TWO)

SYSTEMIC PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

Illustrate with suitable diagrams if required.

- Q. 1.** ✓ Classify pneumonia. Discuss community acquired atypical pneumonia. (8+12 = 20)
- Q. 2.** Write pathogenesis of glomerular injury. Discuss rapidly progressive glomerulonephritis. (10+10= 20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Pathogenesis of inflammatory bowel disease.
 - b. Myelodysplastic syndromes
 - c. Infectious polyneuropathies
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Variants of papillary carcinoma thyroid
 - b. Role of hepcidin in iron absorption
 - c. Placental site trophoblastic tumor
 - d. ✓ Non alcoholic fatty liver disease
 - e. Pathogenesis of rheumatoid arthritis

POST GRADUATE EXAMINATION, SEPTEMBER- 2013

MD PATHOLOGY
(PAPER THREE)

HAEMATOLOGY, BLOOD BANKING, CYTOLOGY & CLINICAL PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

Illustrate with suitable diagrams if required.

- Q. 1. Discuss the techniques and pitfalls of cytological diagnosis of bronchial lesions. (20)
- Q. 2. Classify leukemia and discuss the roles of various special stains and molecular methods in its diagnosis. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. Leukemoid reaction
 - b. Objective scoring in semen analysis
 - c. NAT testing in blood banking
- Q. 4. Write short notes on: (5 x 6 = 30)
- a. Quality control in hematology
 - b. Liver function tests
 - c. Lab diagnosis of tuberculosis
 - d. Coomb's test
 - e. DIC

POST GRADUATE EXAMINATION, SEPTEMBER- 2013

MD PATHOLOGY
(PAPER FOUR)

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams if required.

Q. 1. Discuss pathology and pathogenesis of rheumatic heart disease. (20)

Q. 2. Discuss approach to diagnosis of granulomatous lung disease. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Metaplasias in female genital tract
- b. Role of platelet function tests in clinical practice.
- c. Discuss myelodysplastic syndrome

Q. 4. Write short notes on: (5 x 6 = 30)

- a. LAP score
- b. Flowcytometry in hematology
- c. Acute phase reactants
- d. Apheresis
- e. Non- alcoholic steato- hepatitis

POST GRADUATE EXAMINATION, APRIL/ MAY - 2014

**MD PATHOLOGY
(PAPER ONE)**

GENERAL & APPLIED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Enumerate various autoimmune diseases. Discuss the pathogenesis of autoimmune diseases. (20)
- Q. 2.** Enumerate the markers for diagnosis of epithelial, mesenchymal and lymphoid malignancies. What is the role of Immunohistochemistry in diagnosis of non-Hodgkin's lymphoma? (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Pre-malignant lesions of skin.
 - b. Diagnosis of metabolic bone disease.
 - c. Glycogen storage disease.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. AIDS related lymphomas.
 - b. Genetic basis of hereditary hemochromatosis.
 - c. Angiogenesis in malignancies.
 - d. Reactions in leprosy.
 - e. Microalbuminuria.

POST GRADUATE EXAMINATION, APRIL/ MAY - 2014

MD PATHOLOGY
(PAPER TWO)

SYSTEMIC PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Classification and pathogenesis of Cystic diseases of the kidney. (20)

Q. 2. Discuss melanocytic lesions of the skin. Write about the prognostic factors and molecular pathogenesis of malignant melanoma. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Polycythemia vera.
- b. Complications of diabetes mellitus.
- c. ✓ Crystal induced arthritis.

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Viral meningoencephalitis.
- b. Pathogenesis of colo-rectal adenocarcinoma.
- c. ✓ Endometriosis and adenomyosis. → 10 points → 6 points
- d. ✓ Primary biliary cirrhosis.
- e. Polymorphous low grade adenocarcinoma of the salivary glands.

POST GRADUATE EXAMINATION, APRIL/ MAY - 2014

MD PATHOLOGY
(PAPER THREE)

HAEMATOLOGY, BLOOD BANKING, CYTOLOGY & CLINICAL PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1. ✓ What are the criterias of international myeloma group (IMG) for multiple myeloma? How you will investigate a case of myeloma in laboratory? What is non secretory myeloma? (20)
- Q. 2. Cytology & its pitfalls in a case of solitary nodule thyroid. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. ✓ Cytological diagnosis of pre-malignant lesions of breast.
 - b. ✓ Work-up in a case of acute transfusion reaction.
 - c. Immunophenotyping in Non Hogdkin's lymphoma.
- Q. 4. Write short notes on: (5 x 6 = 30)
- a. ✓ Thrombophilia
 - b. Pathobiology of bcr-abl translocation
 - c. ✓ Plasmapheresis – its indications and complications.
 - d. IPSS scoring of myelodysplastic syndrome.
 - e. ✓ Testicular cytology in a case of infertility.

POST GRADUATE EXAMINATION, APRIL/ MAY - 2014

MD PATHOLOGY
(PAPER FOUR)

RECENT ADVANCES & THEIR CLINICAL APPLICATIONS

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Discuss Etio-Pathogenesis and morphological lesions of occupational lung disease. (20)

Q. 2. Discuss classification and cytodagnosis of Pleomorphic Soft Tissue Tumors. (20)

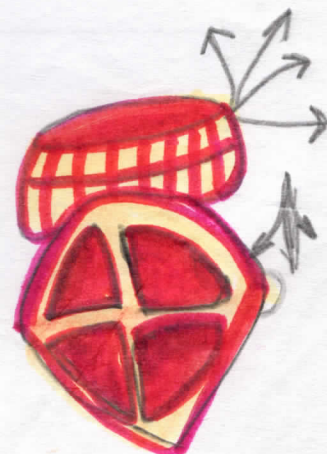
Q. 3. Describe briefly: (3 x 10 = 30)

- a. Myelo-proliferative disorders.
- b. Use of recent immunomarkers in interpretation of prostate biopsy.
- c. Non alcoholic steato-hepatitis.

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Nanotechnology.
- b. Assisted reproductive technologies.
- c. Acute phase reactants.
- d. Metaplasias in female genital tract.
- e. Immunohistochemical techniques.

X



POST GRADUATE EXAMINATION, APRIL - 2015

MD PATHOLOGY

(PAPER ONE)

GENERAL & APPLIED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Define apoptosis. Discuss mechanism, morphological and biochemical changes in apoptosis. **(20)**

Q. 2. Discuss the mechanism of tumor invasion. How tumor cells invade and metastasize. **(20)**

Q. 3. Describe briefly: **(3 x 10 = 30)**

- a. Telomeres and cell ageing.
- b. Obesity and various associated diseases.
- c. DNA microarray technique.

Q. 4. Write short notes on: **(5 x 6 = 30)**

- a. FISH and its uses
- b. Principles of electron microscopy.
- c. Frozen section techniques - salient features.
- d. Stains and special stains used for melanotic tumors.
- e. Free radical injury.

X

POST GRADUATE EXAMINATION, APRIL - 2015

MD PATHOLOGY
(PAPER TWO)

SYSTEMIC PATHOLOGY, CLINICAL BIOCHEMISTRY & CLINICAL MICROBIOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1. Briefly describe the various types of Non-Rheumatic Endocarditis. (20)
- Q. 2. Discuss the role of Immunohistochemistry (IHC) in diagnosis of cancers with unknown primary origin (CUP). (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. Etiopathogenesis and morphological changes in lobar pneumonia.
 - b. Osteosarcoma
 - c. Etiopathogenesis and classification of gestational trophoblastic disease.
- Q. 4. Write short notes on: (5 x 6 = 30)
- a. Congenital hyperbilirubinemia.
 - b. Sex cord stromal tumors of testis.
 - c. Rapidly progressive glomerulonephritis (RPGN).
 - d. Approach to the diagnosis of hirschsprung's disease.
 - e. Role of flow cytometry in the diagnosis of acute leukemia.

POST GRADUATE EXAMINATION, APRIL - 2015

MD PATHOLOGY

(PAPER THREE)

HAEMATOLOGY, BLOOD BANKING, CYTOLOGY AND CLINICAL PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Give an account of Myelodysplastic syndrome (MDS).

(20)

Q. 2. Discuss Molecular basis of Thalassemia and its Laboratory evaluation.

(20)

Q. 3. Describe briefly:

(3 x 10 = 30)

- Cytological diagnosis of auto immune thyroid disease.
- Immunophenotyping in ALL
- Cellular changes after radiotherapy.

Q. 4. Write short notes on:

(5 x 6 = 30)

- Merits and demerits of umbilical cord blood and bone marrow for hemopoietic stem cell transplantation.
- Blood substitutes.
- Diagnostic approach to CML.
- TRALI.
- Proficiency testing in lab. assessment.

POST GRADUATE EXAMINATION, APRIL - 2015

**MD PATHOLOGY
(PAPER FOUR)**

RECENT ADVANCES & THEIR CLINICAL APPLICATIONS

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Discuss molecular genetics in CLL (Chronic Lymphocytic Leukemia). (20)

Q. 2. Discuss recent concepts in classification of thymoma with reference to cytology. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Cord blood diagnostics – Recent advances.
- b. Mucosal phenotype of Barrett's oesophagus.
- c. Role of IHC in classification of NSCLCa (Non Small Cell Lung Carcinoma).

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Nested PCR.
- b. Microsatellite instability.
- c. HPV Vaccines.
- d. Obesity cardiomyopathy.
- e. Approach to nerve biopsy interpretation.

POST GRADUATE EXAMINATION, MAY - 2016

**MD PATHOLOGY
(PAPER ONE)**

GENERAL & APPLIED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. What are cytokines? Classify cytokines and briefly discuss their properties and functions. (20)

Q. 2. What is an ideal fixative? Classify fixatives with examples. Describe the preparation of 10% buffered formalin. (20)

Q. 3. Describe briefly: (3 x 10 = 30)
a. Pathogenesis of reperfusion injury in ischaemia.
b. Effects of radiation.
c. Liquid based cytology for cervical screening.

Q. 4. Write short notes on: (5 x 6 = 30)
a. Granulation tissue
b. Toll like receptors
c. Principle of H & E staining
d. Stem cells
e. Pathogenesis of autoimmune disorders

X

POST GRADUATE EXAMINATION, MAY - 2016

**MD PATHOLOGY
(PAPER TWO)**

SYSTEMIC PATHOLOGY, CLINICAL BIOCHEMISTRY & CLINICAL MICROBIOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Classify non-Hodgkin's lymphomas. Discuss morphology, Immunophenotyping, molecular pathology, clinical features and prognosis of Burkitt's lymphoma. **(20)**

Q. 2. Discuss the various sites, morphology, clinical features and prognosis of carcinoid tumors. **(20)**

Q. 3. Describe briefly: **(3 x 10 = 30)**

- a. Prognostic factors of carcinoma breast.
- b. Giant cell lesions of bone.
- c. Asbestos associated diseases.

Q. 4. Write short notes on: **(5 x 6 = 30)**

- a. Bilirubin metabolism
- b. Pathogenesis of glomerular diseases.
- c. Endometriosis
- d. Premalignant lesion of skin
- e. Biomarkers of myocardial damage

X

POST GRADUATE EXAMINATION, MAY - 2016

MD PATHOLOGY
(PAPER THREE)

HAEMATOLOGY, BLOOD BANKING, CYTOLOGY AND CLINICAL PATHOLOGY

[Time allotted: Three hours][Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Discuss approach to a suspected case of Megaloblastic anaemia.

(20)

✓ Q. 2. Discuss myelo-proliferative disorders.

(20)

Q. 3. Describe briefly:

(3 x 10 = 30)

- ✓ a. Current concepts in pathogenesis of atherosclerosis.
- ✓ b. Role of stem cells in hematological diseases.
- ✓ c. Role of platelet function tests in clinical practice.

Q. 4. Write short notes on:

(5 x 6 = 30)

- ✓ a. Squash smear cytology in Glial tumor.
- ✓ b. Apheresis and its clinical application
- ✓ c. Prion's disease of brain
- ✓ d. Flow cytometry in hematology
- e. QC in blood banking

X

POST GRADUATE EXAMINATION, MAY - 2016

**MD PATHOLOGY
(PAPER FOUR)**

RECENT ADVANCES & THEIR CLINICAL APPLICATIONS

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Discuss genetics in colon carcinoma. (20)

Q. 2. Discuss role of kidney biopsy in glomerular diseases. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Role of platelet function tests in clinical practice.
- b. Bethesda reporting of thyroid lesions.
- c. Role of flowcytometry in haematology.

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Acute phase reactants.
- b. Nanotechnology
- c. Liquid based cytology
- d. Genetic changes in AML.
- e. Targeted therapy in oncology.

X

POST GRADUATE EXAMINATION, MAY - 2017

**MD PATHOLOGY
(PAPER ONE)**

GENERAL & APPLIED PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever required

Q. 1. Classify lysosomal storage diseases. Discuss Niemann Pick disease. (20)

Q. 2. List oncogenic viruses and describe how and which cancers are caused by these viruses. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Laboratory diagnosis of tuberculosis.
- b. Growth factors involved in regeneration and wound healing.
- c. Obesity and disease.

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Fragile X chromosome
- b. Microarrays
- c. Role of special stains in kidney biopsy.
- d. Adverse effects of smoking
- e. Graft versus host disease.

X

POST GRADUATE EXAMINATION, MAY - 2017

**MD PATHOLOGY
(PAPER TWO)**

SYSTEMIC PATHOLOGY, CLINICAL BIOCHEMISTRY & CLINICAL MICROBIOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever required

- Q. 1.** Describe the gross and microscopic features of chronic inflammatory bowel disease. Discuss its pathogenesis. (20)
- Q. 2.** Enumerate the small round cell tumours of childhood. Describe the gross and microscopic appearance of nephroblastoma with special reference to staging and prognostic indices. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. Role of helicobacter pylori in gastritis and its sequelae.
 - b. Histopathology of skin in leprosy.
 - c. Prognostic and predictive factors of breast carcinoma.
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Autoimmune thyroiditis
 - b. Investigation of male infertility
 - c. Non-alcoholic steato-hepatitis
 - d. Rosette and pseudorosette
 - e. Gleason's scoring for prostatic carcinoma

X

POST GRADUATE EXAMINATION, MAY - 2017

**MD PATHOLOGY
(PAPER THREE)**

HAEMATOLOGY, BLOOD BANKING, CYTOLOGY AND CLINICAL PATHOLOGY

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever required

Q. 1. Classify and discuss lab diagnosis of acute leukemias. (20)

Q. 2. Discuss cyto-diagnosis of thyroid lesions. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Transfusion reactions
- b. Objective scoring in semen analysis
- c. Lab diagnosis of multiple myeloma

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Liver function tests
- b. LAP score
- c. Plasma-pheresis
- d. Lab diagnosis of hemolytic anemia
- e. Quality control in blood banking

X