



होमी भाभा राष्ट्रीय संस्थान
Homi Bhabha National Institute

(Tata Memorial Centre)

Tata Memorial Hospital
Dr. Ernest Borges Marg, Parel Mumbai – 400 012

MD – Pathology – Paper II

(2011)

Total Duration :3 hours

Total Marks : 100

Instructions: 1. Use blue/black ball point pen only.

2. Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.

3. All questions are compulsory.

4. The number to the right indicates full marks.

5. Draw diagrams wherever necessary.

1. Describe the lesions of cardiovascular syphilis. (1x25=25)

2. Give an account of neuroendocrine tumors of the gastrointestinal tract. (1x25=25)

3. Solve any five questions out of six:

(5x10=50)

a. Osteoarthritis- newer concepts

b. Chronic colitis

c. Functional tumors of the ovary

d. Hirschsprung's disease

e. Endomyocardial biopsy

f. Autoimmune hepatitis



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MD – Pathology – Paper III

(2011)

Total Duration :3 hours

Total Marks :100

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1. Discuss acute myeloid leukemias with recurrent genetic abnormalities (1x25=25)

2. Discuss thrombophilia (1x25=25)

3. Solve any five questions out of six: (5X10=50)

a. Blood components

b. Approach to polycythemia

c. Fanconi's anemia

d. Hemophilia and its laboratory diagnosis

e. Hematological changes during pregnancy

f. Apheresis



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MD – Pathology – Paper IV

Total Duration :3 hours (2011)

Total Marks :100

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3. All questions are compulsory.

4. The number to the right indicates full marks.

5. Draw diagrams wherever necessary.

1. Discuss the laboratory diagnosis of myocardial infarction (1x25=25)

2. Describe the pathology of sudden unexpected infant death (1x25=25) syndrome

3. Solve any five questions out of six; (5x10=50)

a. Epstein Barr virus

b. Proteomics

c. Laboratory diagnosis of malaria

d. Laboratory waste disposal

e. Porphyria

f. Laboratory tests in a suspected case of myeloma



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Theory Examination MD – Pathology

May – June 2012

Paper I

General Pathology including General Neoplasia, Immunopathology and
Cytopathology-1

Total Duration : 3 hrs

Total marks : 100

Instructions:

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5. Draw diagrams whenever necessary.

1. Enumerate the cases of shock and describe the pathogenesis of septic shock.

(1x25=25)

2. Describe the morphological and biochemical features of apoptosis and its role in physiological and pathological processes giving appropriate examples.

(1x25=25)

3. Solve any five questions out of six:

(5x10=50)

- a. Enlist subtypes of stem cells and their role in various therapeutic modalities.
- b. DNA microarray.
- c. Bronchio-alveolar lavage.



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Theory Examination MD – Pathology
May – June 2012

Paper II
Systemic Pathology including Systemic neoplasia -II

Total Duration : 3 hrs

Total marks : 100

Instructions:

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3. All questions are compulsory.
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5. Draw diagrams whenever necessary.

1. Discuss the etiology, pathogenesis, pathology and diagnosis ^{and} of complications of infective endocarditis. (1x25=25)

2. Classification and pathology of pituitary tumors. (1x25=25)

3. Solve ~~any~~ five questions ~~out of six~~ (5x10=50)

- a. Membranous nephropathy
- b. Emphysema
- c. Premalignant conditions in breast
- d. Grading and staging of chronic hepatitis



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May – June 2012

Paper III

Hematology, Transfusion Medicine, Immunohematology including recent advances-III

Total Duration : 3 hrs

Total marks : 100

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3. All questions are compulsory.
4. The number to the right indicates full marks.
5. Draw diagrams whenever necessary.

1. Discuss the pathogenesis and diagnostic work-up of Hereditary spherocytosis. (1x25=25)

2. Describe the classification, molecular pathogenesis and pathology of Myelodysplastic syndrome (1x25=25)

3. Solve any five out of six questions: (5x10=50)

- a. Laboratory investigations in Anti-phospholipid Antibody syndrome
- b. Von Willebrand Disease
- c. Hemolytic disease of the new-born
- d. Laboratory diagnosis of Malaria
- e. Transfusion associated infections



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Theory Examination MD – Pathology

May – June 2012

Paper IV

Clinical Pathology, Chemical Pathology, Pathology of Infectious Diseases and Recent Advances-IV

Total Duration : 3 hrs

Total marks : 100

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3. All questions are compulsory.

4. The number to the right indicates full marks.

5. Draw diagrams whenever necessary.

1. Enlist the various infections in central nervous system of a Immuno compromised (1x25=25)
Patient. Describe the pathology and laboratory diagnosis.

2. Laboratory evaluation of Nephrotic syndrome. (1x25=25)

3. Solve any five questions out of six: (5x10=50)

a. Laboratory investigations of jaundice in a neonate.

b. Agents of Bioterrorism.

c. Sudden infant death syndrome.

d. Troponins.

e. Disposal of laboratory waste.



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Theory Examination MD – Pathology

May – June 2013

Paper I

Total Duration: Three hours

Total Marks: 100

1. Discuss the pathogenesis and pathology of rejection of transplant. (01x25=25)
2. Discuss cytomorphology of Thyroid Fine needle aspiration cytology, the NCI Bethesda classification and implications for management. (01x25=25)
3. Solve any five questions out of seven: (05x10=50)
 - a. Inflammation-related cytokines
 - b. Air embolism
 - c. Chemical carcinogens
 - d. Marfan's syndrome
 - e. Galactosemia
 - f. Oncogenic DNA viruses
 - g. Necrotizing Enterocolitis



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Paper II

Total Duration: Three hours

Total Marks: 100

1. Describe the lesions of non-infectious vasculitis and recent advances in this area. (01x25=25)
2. Give the classification and pathology of urinary bladder tumors. (01x25=25)
3. Solve any five questions out of seven: (05x10=50)
 - a. Peliosis hepatis
 - b. Prion diseases
 - c. Extramammary Paget's disease
 - d. Chronic pancreatitis
 - e. Prolactinomas
 - f. Serrated polyp
 - g. IgA nephropathy



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Paper III

Total Duration: Three hours

Total Marks: 100

1. Discuss laboratory investigation and prognostic factors in Acute Lymphoblastic Leukemia. (01x25=25)

2. Discuss the pathogenesis and diagnostic work-up of Sickle-cell Anemia. (01x25=25)

3. Solve any five questions out of seven: (05x10=50)
 - a. Paroxysmal Nocturnal Hemoglobinuria
 - b. Heparin-induced thrombocytopenia
 - c. Plasma cell dyscrasias classification
 - d. Autologous Blood transfusion
 - e. Myelofibrosis
 - f. Flow cytometry panels of Chronic Lymphoproliferative Disorders
 - g. Graft versus Host disease



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Paper IV

Total Duration: Three hours

Total Marks: 100

1. Laboratory evaluation of male infertility. (01x25=25)

2. Describe the pathology of pulmonary granulomatous inflammation, the differential diagnosis and various diagnostic modalities. (01x25=25)

3. Solve any **five** questions out of **seven**: (05x10=50)
 - a. Biosafety measures in a clinical pathology laboratory.
 - b. Metabolomics
 - c. Serum alkaline phosphatase
 - d. Urinary casts
 - e. Viral pneumonias
 - f. Normal lipid profile in blood
 - g. Cerebrospinal fluid examination