

Reg. No.

**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2018**  
**SUBJECT: PAPER I: GENERAL PATHOLOGY, PATHOPHYSIOLOGY,**  
**IMMUNOPATHOLOGY AND CYTOPATHOLOGY**

Monday, April 02, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Discuss the pathogenesis and pathology of septic shock. (15 marks)

2. Discuss the role of FNAC in the diagnosis of lung lesions. (15 marks)

3. **Write short notes on:**

- 3A. Antibodies in systemic lupus erythematosus.
- 3B. Cervical cytology in postmenopausal women.
- 3C. Mechanism of apoptosis.
- 3D. Endogenous pigments.
- 3E. Types of Niemann-Pick disease.
- 3F. Role of APC gene in tumorigenesis.
- 3G. Role of growth factors in cutaneous wound healing.
- 3H. Mechanisms of immunologic tolerance.
- 3I. Preparation and utility of cell block technique.
- 3J. Role of stroma in tumor progression.

(7 marks × 10 = 70 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2018**  
**SUBJECT: PAPER II: SYSTEMIC PATHOLOGY**

Tuesday, April 03, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Discuss the role of special stains, immunofluorescence and electron microscopy in the diagnosis of glomerular diseases.

(15 marks)

2. Discuss pathogenesis and pathology of gestational trophoblastic diseases.

(15 marks)

3. **Write short notes on:**

3A. Classification and morphology of benign cartilaginous tumors.

3B. Non-Cirrhotic portal hypertension.

3C. Granulomatous vasculitis.

3D. Cutaneous lesions in AIDS.

3E. Demonstration and identification of common fungal infections in tissues.

3F. Aneurysms in brain.

3G. Familial gastric-intestinal polyposis syndromes.

3H. Restrictive cardiomyopathy.

3I. Pathogenesis and morphology of auto-immune thyroid disorders.

3J. Joint disorders secondary to crystal deposition.

(7 marks × 10 = 70 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2018**  
**SUBJECT: PAPER III: HAEMATOLOGY, TRANSFUSION MEDICINE (BLOOD BANKING) AND LABORATORY MEDICINE**

Wednesday, April 04, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Mention the WHO classification of myeloproliferative neoplasms (MPN). Describe the molecular pathogenesis of MPN. Discuss the bone marrow features of each of the subtypes.

(5+5+5 = 15 marks)

2. Describe molecular pathogenesis, laboratory diagnosis and clinical features of Multiple myeloma. Add a note on plasma cell leukemia.

(5+5+3+2 = 15 marks)

3. **Write short notes on:**

3A. Lab diagnosis of disseminated intravascular coagulation

3B. Qualitative platelet disorders

3C. Westgard rules in hematology

3D. Coombs test

3E. Cryoprecipitate

3F. Clinical syndromes of  $\beta$  thalassemia

3G. Indications for apheresis

3H. Hemophagocytic syndrome

3I. HIV related lymphoid proliferations

3J. Regulation of erythropoiesis

(7 marks  $\times$  10 = 70 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2018**  
**SUBJECT: PAPER IV: RECENT ADVANCES AND APPLIED ASPECTS**

Thursday, April 05, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

**✍ Answer ALL the questions.**

**✍ Long Essay:**

1. Discuss the various tumors associated with Epstein Barr virus infection. (15 marks)

2. Discuss the prognostic factors in breast carcinoma. (15 marks)

3. **Write short notes on:**

3A. Cutaneous pseudolymphoma

3B. Pediatric solid tumors

3C. New classification of renal neoplasms

3D. Role of HLA in renal transplant

3E. Pulmonary lymphoproliferative disorders

3F. PECOMA

3G. Recent advances in neuroendocrine tumors

3H. Ectomesenchymoma

3I. Role of immunohistochemistry in prostatic biopsy

3J. Cytokeratin immunostaining profiles in diagnostic pathology

(7 marks × 10 = 70 marks)

