

**MANIPAL UNIVERSITY****MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2016****SUBJECT: PAPER I: GENERAL PATHOLOGY, PATHOPHYSIOLOGY,  
IMMUNOPATHOLOGY AND CYTOPATHOLOGY**

Monday, April 18, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Discuss the role of immunofluorescence in renal pathology.

(15 marks)

2. Discuss the cytopreparatory techniques and staining of effusions.

(15 marks)

3. **Write short notes on:**

3A. Chronic granulomatous disease

3B. Radiation oncogenesis

3C. Role of Oxidative stress in cell injury

3D. Intraoperative cytology in the diagnosis of pancreatic lesions

3E. Pathophysiology of septic shock

3F. Role of T cells in transplant rejection

3G. Crush smear cytology of glial tumours

3H. Tumour immunity

3I. Classification of Lysosomal storage disorders

3J. Adhesion molecules in inflammation

(7 marks × 10 = 70 marks)



**MANIPAL UNIVERSITY****MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2016****SUBJECT: PAPER II: SYSTEMIC PATHOLOGY**

Tuesday, April 19, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Classify endometrial neoplasms. Discuss the clinicopathologic types, pathogenesis, morphology and immunohistochemistry of endometrial carcinoma.

(3+2+4+4+2 = 15 marks)

2. Classify the extranodal lymphomas. Discuss the morphological features and immunohistochemistry of gastric lymphomas.

(5+5+5 = 15 marks)

3. **Write short notes on:**

3A. Perivascular epithelioid cell tumor

3B. Morphology of Lupus nephritis

3C. Pathological features of Mesenchymal hamartoma of the Liver

3D. Classification and prognostic features of thymoma

3E. Langerhans cell histiocytosis

3F. Classify Asbestos related lung diseases and describe its pathogenesis

3G. Pathology of Desmoplastic small round cell tumor

3H. Classify Vasculitis and discuss the features of Medium vessel vasculitis

3I. Etiopathogenesis of Renal calculi

3J. Functional tumors of the ovary

(7 marks × 10 = 70 marks)



**MANIPAL UNIVERSITY****MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2016****SUBJECT: PAPER III: HAEMATOLOGY, TRANSFUSION MEDICINE (BLOOD BANKING) AND LABORATORY MEDICINE**

Wednesday, April 20, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Discuss anaemia of chronic diseases and add a note on role of red cells parameters in its diagnosis. (15 marks)
2. Discuss quality assurance in blood banking. (15 marks)

3. **Write short notes on:**

- 3A. Leuco-erythroblastic reaction
- 3B. Bernard Soulier syndrome
- 3C. Plasmapheresis
- 3D. Microalbuminuria
- 3E. Sezary syndrome
- 3F. Chromosomal translocations in acute myeloid leukemia
- 3G. Hemolytic uremic syndrome
- 3H. Minimal residual disease
- 3I. Significance of blood indices in clinical hematology
- 3J. Disseminated intravascular coagulation

(7 marks × 10 = 70 marks)



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## MANIPAL UNIVERSITY

### MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2016

#### SUBJECT: PAPER IV: RECENT ADVANCES AND APPLIED ASPECTS

Thursday, April 21, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essay:**

1. Discuss the current concepts in pleomorphic sarcomas. (15 marks)
2. Discuss the recent advances in pathogenesis and pathology of chronic hepatitis. (15 marks)

3. **Write short notes on:**

- 3A. Advances in endometrial pathology
- 3B. Cancer vaccines
- 3C. Role of microwave in histopathology
- 3D. Current concepts in Hodgkin lymphoma
- 3E. Liquid based cytology in cervical screening
- 3F. Role of Tensins in health
- 3G. Molecular testing for HPV
- 3H. Concept of epithelial mesenchymal transition in neoplasia
- 3I. Array CGH
- 3J. Mammary analogue secretory carcinoma

(7 marks × 10 = 70 marks)

