

|          |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|
| Reg. No. |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|

## MANIPAL UNIVERSITY

MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2011

SUBJECT: PAPER I: GENERAL PATHOLOGY INCLUDING IMMUNOPATHOLOGY

Monday, April 04, 2011

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ All questions carry equal marks.

1. Discuss the role of stem cells in tissue homeostasis.
2. Discuss the disorders of pigments.
3. Discuss the role of immunological tolerance. List the autoimmune diseases. Write briefly on SLE.
4. **Write short notes on:**
  - 4A. Adhesion molecules in acute inflammation
  - 4B. Oncogenes
  - 4C. Radiation injury
  - 4D. Mucoviscidosis



Reg. No.

## MANIPAL UNIVERSITY

MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2011

SUBJECT: PAPER II: SYSTEMIC PATHOLOGY

Tuesday, April 05, 2011

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **All questions carry equal marks.**

1. Discuss the recent concepts in the pathology of non-alcoholic steatohepatitis.
2. Discuss the role of kidney biopsy in the diagnosis of glomerular diseases.
3. Discuss the etiopathogenesis and pathology of emphysema.
4. **Write short notes on:**
  - 4A. Alzheimer disease
  - 4B. Utility of muscle biopsy
  - 4C. Morphology of ulcerative colitis
  - 4D. Bullous lesions of the skin



Reg. No.

**MANIPAL UNIVERSITY**

**MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2011**

**SUBJECT: PAPER III: ONCOLOGY**

Wednesday, April 06, 2011

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **All questions carry equal marks.**

1. Discuss the pathology of cutaneous T cell – lymphomas.
2. Classification and diagnostic approach to mediastinal tumors.
3. Discuss the pathology of childhood CNS tumours.
4. **Write short notes on:**
  - 4A. Variants of lipoma
  - 4B. Giant cell lesions of the jaw
  - 4C. Gut endocrine tumors
  - 4D. Tumors of paratesticular region



|          |  |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|--|
| Reg. No. |  |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|--|

## MANIPAL UNIVERSITY

MD (PATHOLOGY) DEGREE EXAMINATION – APRIL 2011

SUBJECT: PAPER IV: HAEMATOLOGY, CLINICAL PATHOLOGY AND CYTOLOGY

Thursday, April 07, 2011

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

---

✍ **Answer ALL the questions.**

✍ **All questions carry equal marks.**

1. Classify monoclonal gammopathies. Discuss the pathogenesis and laboratory diagnosis of Waldenstrom macroglobulinemia.
2. Classify and discuss the laboratory diagnosis of von Willebrand disease.
3. Discuss the differential diagnosis in cytologic evaluation of thyroid lesions with oncocytic features.
4. **Write short notes on:**
  - 4A. Role of HPLC in detection of hemoglobin variants
  - 4B. Hematologic manifestations of HIV infection
  - 4C. Mimics of carcinoma in respiratory cytology
  - 4D. Discuss the role of artificial neural network in cytology

