

**MANIPAL UNIVERSITY****PG DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION – APRIL 2015****SUBJECT: PAPER I: GENERAL PATHOLOGY INCLUDING BASIC MICROBIOLOGY**

Wednesday, April 01, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ✍ Answer ALL the questions.
- ✍ Draw labeled diagrams wherever appropriate.
- ✍ Write sections A and B in separate answer booklets.

**SECTION- A: GENERAL PATHOLOGY (50 MARKS)**

1. Mention the various pathways of spread of malignant tumors with suitable examples. Describe the molecular mechanism involved in invasion and metastatic cascade.  
(4+11 = 15 marks)
2. Answer briefly:
  - 2A. Pathogenesis of septic shock
  - 2B. Mechanism of apoptosis
  - 2C. Chemotaxis in inflammation
  - 2D. List the AIDS defining opportunistic infections
  - 2E. Cytogenetic abnormality and clinical features of Down syndrome(7 marks × 5 = 35 marks)

**SECTION- B: GENERAL MICROBIOLOGY (50 MARKS)**

3. Define sterilization. Classify the methods of sterilization. Discuss sterilization by moist heat.  
(2+4+9 = 15 marks)
4. Answer briefly:
  - 4A. Microfilaria
  - 4B. Oral thrush
  - 4C. MMR vaccine
  - 4D. Madura Mycosis
  - 4E. Mechanism of Type I Hypersensitivity(7 marks × 5 = 35 marks)



## MANIPAL UNIVERSITY

PG DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION – APRIL 2015

SUBJECT: PAPER II: SYSTEMIC PATHOLOGY AND CYTOLOGY

Thursday, April 02, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

☞ All questions are compulsory

☞ Illustrate your answers with diagrams, flow charts, tables etc. wherever appropriate.

☞ Essay:

1. Discuss differential diagnosis of Small round cell tumors of childhood, with special reference to immunohistochemistry.

(15 marks)

2. Discuss the role of FNAC in the work-up of lymphadenopathy.

(15 marks)

3. Write short notes on the following:

3A. Non-alcoholic steatohepatitis

3B. Classification of Lupus Nephritis

3C. Barrett's esophagus

3D. Morphological variants of Meningioma

3E. Histological Prognostic factors in breast carcinoma

3F. Creutzfeldt-Jacob disease

3G. Paratesticular tumors

3H. Differential diagnosis of vegetations on heart valves

3I. Limitations of FNA in diagnosis of solitary thyroid nodule

3J. Atypical squamous cells of undetermined significance

(7 marks × 10 = 70 marks)



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## MANIPAL UNIVERSITY

PG DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION – APRIL 2015

SUBJECT: PAPER III: HAEMATOLOGY, CLINICAL PATHOLOGY AND  
CLINICAL BIOCHEMISTRY

Saturday, April 04, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ☞ All questions are compulsory
- ☞ Illustrate your answers with diagrams, flow charts, tables etc. wherever appropriate.

1. Discuss the relevance of red cell indices in classification of anemia. (15 marks)
2. Discuss iron metabolism and relevance of serum iron profile in clinical practice. (15 marks)
3. Write short notes on the following:
  - 3A. Principles of automation in coagulation machines
  - 3B. Polymorphocytic leukemia
  - 3C. Relevance of glycated hemoglobin
  - 3D. Causes and evaluation of hemoglobinuria
  - 3E. Hematologic changes in pregnancy
  - 3F. Bilirubin metabolism
  - 3G. Reticulocyte parameters
  - 3H. Applications of Apheresis
  - 3I. Lab diagnosis of Acute lymphoblastic leukemia
  - 3J. Lab diagnosis of von Willebrand disease

(7 marks × 10 = 70 marks)

