

**MANIPAL ACADEMY OF HIGHER EDUCATION****PG DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION – APRIL 2019****SUBJECT: PAPER I: GENERAL PATHOLOGY INCLUDING BASIC MICROBIOLOGY**

Tuesday, April 02, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ✍ **Answer ALL the questions.**
- ✍ **Illustrate your answers with diagrams, flow charts, tables etc. wherever appropriate.**
- ✍ **Write sections A and B in separate answer booklets.**

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

1. Discuss the pathways of spread of tumor. (15 marks)

2. **Write short notes on:**

- 2A. Cytokines in inflammation.
- 2B. Pathogenesis of HIV infection and AIDS including CNS involvement.
- 2C. Niemann-Pick disease.
- 2D. Necroptosis and Pyroptosis.
- 2E. Virchow triad.

(7 marks × 5 = 35 marks)

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

3. Describe the pathogenesis and laboratory diagnosis of Rabies. (8+7 = 15 marks)

4. **Write short notes on:**

- 4A. Laboratory diagnosis of Pulmonary tuberculosis.
- 4B. Laboratory diagnosis of HIV infection.
- 4C. Type I Hypersensitivity.
- 4D. Pathogenesis and laboratory diagnosis of Cryptococcal meningitis.
- 4E. Bacillary dysentery.

(7 marks × 5 = 35 marks)



Reg. No.

**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**PG DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION – APRIL 2019**  
**SUBJECT: PAPER II: SYSTEMIC PATHOLOGY AND CYTOLOGY**

Wednesday, April 03, 2019

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. Classify Hodgkin's lymphoma. Discuss the clinical, morphological and immunohistochemical features of the different variants.

(15 marks)

2. Discuss the role of Cytology in the diagnosis of Lung malignancy.

(15 marks)

3. **Write short notes on the following:**

3A. Wilm's tumor.

3B. Glioblastoma multiforme.

3C. H Pylori and gastric lymphoma.

3D. Causes of Portal hypertension.

3E. Premalignant lesions in the breast.

3F. Pathogenesis of Type II diabetes Mellitus.

3G. Immune mediated blistering skin disorders.

3H. Papillary urothelial neoplasm of undetermined malignant potential.

3I. Cytopathology of Medullary carcinoma of thyroid.

3J. Automation in Cytology.

(7 marks × 10 = 70 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

PG DIPLOMA IN CLINICAL PATHOLOGY (DCP) EXAMINATION – APRIL 2019

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

Thursday, April 04, 2019

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. Classify von Willebrand disease with specific features of each. Discuss the lab diagnosis of von Willebrand disease.

(15 marks)

2. Describe the various biochemical tests available to evaluate a person with jaundice.

(15 marks)

3. **Write short notes on the following:**

3A. RBC indices and their implications in hematology.

3B. Newer methods in diagnosis of malaria.

3C. Significance of mixing studies in a coagulation disorder.

3D. Briefly explain methods of urine collection and preservation.

3E. Anticoagulants used in hematology.

3F. Principle and interpretation of osmotic fragility test.

3G. Principles of automation in cell counters.

3H. Preparation of various blood components and their uses.

3I. Semen analysis.

3J. Leukoerythroblastic reaction.

(7 marks × 10 = 70 marks)

