

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

MANIPAL ACADEMY OF HIGHER EDUCATION
DM (MEDICAL ONCOLOGY) DEGREE EXAMINATION – JUNE 2024

PAPER I

Monday, June 10, 2024

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Essays**

1. Tobacco-related cancers and tobacco control policies in India

(10+10 = 20 marks)

2. Discuss the cytogenetics, immunophenotyping and molecular testing in acute leukemia.
Describe the risk stratification and classification of acute leukemia.

(10+10 = 20 marks)

3. **Short Essays:**

3A. BRAF-V600E mutation – write about the molecular basis and the clinical implications in oncology.

3B. Response assessment in cancer

3C. High dose methotrexate

3D. Discuss the role of miRNA in cancer

3E. Pharmacogenomics

3F. Write about the approach to chemotherapy extravasation

(10 marks × 6 = 60 marks)



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

MANIPAL ACADEMY OF HIGHER EDUCATION
DM (MEDICAL ONCOLOGY) DEGREE EXAMINATION – JUNE 2024

PAPER II

Tuesday, June 11, 2024

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Your answers should be specific to the questions asked. Draw neat, Labelled diagrams wherever necessary.**

✍ **Long Essays:**

1. Discuss the etio-pathogenesis and staging of gastric cancer. Explain the treatment of locally advanced and metastatic adenocarcinoma stomach. Discuss the role of diagnostic laparoscopy in the management of gastric cancer.

(5+10+5 = 20 marks)

2. Explain the etio-pathogenesis of carcinoma gall bladder. Discuss the role of genetic testing /NGS and treatment of locally advanced / metastatic carcinoma gall bladder

(5+5+10 = 20 marks)

3. **Short Essays:**

3A. Discuss the applications of endoscopic and robotic surgeries in oncology practice. Write the advantages of robot assisted surgeries over conventional laparoscopic surgeries.

3B. How do you manage locally advanced carcinoma of urinary bladder? Write briefly on bladder preservation strategies.

3C. Write the pre-treatment evaluation of patient with gestational trophoblastic neoplasia. Outline the management of high risk GTN.

3D. Discuss the molecular subtypes of GIST and their pathogenic driver mutations.

3E. What are the treatment options for a patient with brain metastases? Outline the management of EGFR mutated lung cancer with brain metastases.

3F. Write briefly on the management of pseudomyxoma peritonei and discuss the role of HIPEC.

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
DM (MEDICAL ONCOLOGY) DEGREE EXAMINATION – JUNE 2024

PAPER III

Wednesday, June 12, 2024

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Essays:**

1. 42-year-old female presents with fatigue, fever and menorrhagia. Blood parameters show Hemoglobin 7.2g/dl; Total counts 10500 cells/cumm, platelets 42000/cumm; peripheral smear showed 35% myeloid blasts.

1A. Discuss the cytogenetics with clinical implications in this scenario.

1B. Discuss the risk stratification and management of APML.

(10+10 = 20 marks)

2. 10 year old boy presents with cough and weight loss. Chest X ray shows mediastinal widening.

2A. Discuss the approach to diagnosis.

2B. Discuss the pre management issues.

2C. Discuss clinical management of pediatric Hodgkin lymphoma.

(5+5+10 = 20 marks)

3. **Write Short notes on:**

3A. Issues with blood and blood product usage in transplant patients

3B. Febrile neutropenia in patient receiving induction chemotherapy

3C. Triple hit myeloma

3D. Rehabilitation in a pediatric cancer patient

3E. Venetoclax

3F. Stem cell mobilization techniques

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
DM (MEDICAL ONCOLOGY) DEGREE EXAMINATION – JUNE 2024

PAPER IV

Thursday, June 13, 2024

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions. Your answers should be specific to the questions asked. Draw neat, Labelled diagrams wherever necessary.**

✍ **Long Essays:**

1. Explain regarding Her 2 testing in oncology and implications. Write about the therapeutic strategies to target Her 2 in different cancers

(20 marks)

2. Write about the molecular origin of lymphomas and therapeutic strategies based on the same. Explain regarding the newer advances in the treatment of lymphomas

(10+10 = 20 marks)

3. **Answer all the questions:**

3A. EBCTCG (Early Breast Cancer Trialists' Collaborative Group) metaanalysis

3B. Discuss the components of late effects clinics. Enumerate the long term side effects of cancer treatment and their management

3C. Bispecific T cell engagers

3D. Treatment sequencing in EGFR mutated metastatic adenocarcinoma lung

3E. Tumor agnostic therapies in oncology.

3F. Enumerate the different types of pain. Explain the WHO ladder for pain management and the strategies used for tackling pain, with opioid dosing and the use of adjuncts.

(10 marks × 6 = 60 marks)

