

April-2001

[KD 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION

(Higher Specialities)

Branch VII — Medical Oncology

(Revised Regulations)

Paper IV — RECENT ADVANCES IN MEDICAL
ONCOLOGY

Time : Three hours

(Maximum : 100 marks

Answer ALL questions

1. Discuss the role of biological response modifiers in management of cancer. (25)
2. Discuss the various aspects of high dose chemotherapy in cancer. (25)
- 3 Write briefly on : (5 × 10 = 50)
 - (a) Topoisomerase inhibitors.
 - (b) Hyperthermia.
 - (c) Late effects of Cancer chemotherapy
 - (d) All transretinoic acid (ATRA).
 - (e) Gene therapy.

[KE 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VII — Medical Oncology

Paper IV — RECENT ADVANCES IN MEDICAL
ONCOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss critically role of chemotherapy in the treatment of anal canal cancer. (25)
 2. Discuss management of standard prognosis AML. (25)
 3. Short notes on : (5 × 10 = 50)
 - (a) STI-571 (Tyrosine Kinase Inhibitor)
 - (b) Gene therapy in gliomas
 - (c) Thalidomide
 - (d) Hormone replacement therapy
 - (e) Antibody targeted therapy in nonHodgkins Lymphoma.
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March-2002

[KG 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VII — Medical Oncology

Paper IV — RECENT ADVANCES IN MEDICAL
ONCOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss outpatients management of febrile neutropenia following cancer chemotherapy. (25)
2. Discuss critically role of concurrent chemoradiotherapy in head and neck Cancer. (25)
3. Write short notes on : (5 × 10 = 50)
 - (a) Arsenic trioxide
 - (b) Mycophenolate Mofetil (MMF)
 - (c) Advances in the chemotherapy of pancreatic cancer
 - (d) Mixed chimerism in marrow transplants
 - (e) Multiagent antifolate in non small cell lung cancer.

[KK 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VII — Medical Oncology

Paper IV — RECENT ADVANCES IN MEDICAL ONCOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

A. Essay :

(2 × 15 = 30)

(1) Describe briefly hierarchy of haemopoiesis. How stem cells play a part in tissue repair?

(2) Discuss critically the role of concurrent chemoradiotherapy in the management of anal cancer.

B. Short notes.

(10 × 5 = 50)

(1) Target based therapy for head and neck cancer.

(2) Immunotherapy for the treatment of malignant gliomas.

- (3) Role of monoclonal antibodies in lymphomas.
- (4) Bortezomib.
- (5) Treatment of stem cell transplantation in the childhood ALL (acute lymphoblastic leukemia).
- (6) Flow Cytometry.
- (7) Treatment of Secondary leukemia.
- (8) Chemotherapy for Medulloblastoma.
- (9) Hormone therapy for metastatic breast cancer
- (10) Gene therapy for malignant melanoma.

[KL 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VII — Medical Oncology

Paper IV — RECENT ADVANCES IN MEDICAL ONCOLOGY

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

I. Essay :

 $(2 \times 15 = 30)$

(1) Describe critically the management of a case of 30 year old male recently diagnosed to have chronic phase chronic myeloid leukemia.

(2) Discuss critically the role of neoadjuvant chemotherapy in the management of locally advanced breast cancer.

II. Short notes :

(10 × 5 = 50)

(a) Monoclonal antibodies in the treatment of leukemias

(b) Mycophenolate mofetil

(c) Treatment of Metastatic Neuroblastoma

(d) Large cell anaplastic lymphoma

(e) Guidelines for the treatment of relapsed ovarian cancer

(f) Role of chemotherapy for extremity soft tissue sarcomas among adults

(g) Rituximab

(h) Treatment of metastatic choriocarcinoma

(i) Genetic of retinoblastoma

(j) Role of adjuvant chemotherapy for gastric cancer.

February-2005

[KM 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VII — Medical Oncology

Paper IV — RECENT ADVANCES IN MEDICAL
ONCOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Essay : (2 × 15 = 30)

(1) Discuss the role of autologous stem cell transplantation in present practice of oncology.

(2) Discuss the role and recent trends of targeted therapy.

II. Write short notes on : (10 × 5 = 50)

(a) Cancer vaccines

(b) Chemoprevention

(c) Role of laparoscopy in diagnosis and treatment

(d) Chemotherapy of prostate cancer

(e) Biphosphonates

(f) Meta-analysis

(g) Aromatase inhibitors

(h) Epidemiology of cancer in India

(i) Role of erythropoietin in cancer anaemia

(j) Cancer in Immuno-suppressed.

[KO 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VII — Medical Oncology

Paper IV — RECENT ADVANCES IN MEDICAL
ONCOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Essay : (2 × 15 = 30)

(1) Describe critically the management of Hodgkins disease which relapsed after standard ABVD.

(2) Discuss the Neoadjuvant treatment of cancer of rectum.

II. Short Notes: (10 × 5 = 50)

(a) Hormonal treatment of breast cancer in premenopausal female.

(b) Angiogenesis inhibitors.

(c) Cyto protection during chemotherapy

(d) Chemo prevention of cancer

(e) Chemotherapy for mesothelioma

(f) Imatinib mesylate

(g) Treatment of gastric lymphoma

(h) Immuno histo chemistry for small round cell tumors.

(i) Radio immuno pharmaceuticals in hematologic malignancies.

(j) Somatostatin.

[KP 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VII — Medical Oncology

Paper IV — RECENT ADVANCES IN MEDICAL
ONCOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

I. Essay :

(1) Critically evaluate the role of sentinel lymph node biopsy, along with the various techniques used, in the management of tumours at different sites. (20)

(2) Discuss the etiopathogenesis of deep vein thrombosis in cancer. Suggest an investigative work up for such patients. Outline a management approach. (15)

(3) Discuss Neoplastic angiogenesis and antiangiogenesis therapy. (15)

II. Short notes : (6 × 5 = 30)

(a) Chemoradiotherapy in the management of carcinoma of the anal canal

(b) Management of metastatic endometrial stromal sarcoma.

(c) Cyclo-oxygenase-2 (COX2) inhibitors in prevention of cancer.

(d) Temozolomide for metastatic brain tumours.

(e) Magnetic resonance spectroscopy.

(f) Suicide gene therapy.

[KQ 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VII — Medical Oncology

**Paper IV — RECENT ADVANCES IN MEDICAL
ONCOLOGY**

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Essay :

1. Critically evaluate Breast conservative surgery vis-a-vis radical surgery in the management of Breast cancer. (20)

2. Discuss immuno surveillance mechanisms and the different immunotherapeutic strategies. (15)

3. Discuss the plasma - cell - stromal interactions in multiple myeloma. Discuss various therapeutic strategies in the treatment of myeloma. (15)

II. Short notes : (6 × 5 = 30)

1. Chemoradiotherapy in the management of carcinoma of cervix.

2. Metastatic renal cell carcinoma

3. Prevention of oral cancer.

4. Dendritic cell vaccines

5. Carcinomatous meningitis.

6. LASER in the management of cancer of the upper aerodigestive tract.

Sub. Code : 1304

(Revised Regulations)

Paper IV — RECENT ADVANCES IN MEDICAL ONCOLOGY

Theory : Two hours and forty minutes	Theory : 80 marks
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Answer ALL questions.

I. Essays :

1. Discuss the phases of clinical trials in cancer. Enumerate the pros and cons of using Indian patients in multinational clinical trials. (20)

3. 'Cancer is a multistep process' Explain this with example of head and neck cancer. What could be possible interventions at each step. (15)

(c) Compare and contrast : 5 Fluorouracil and Capecitabine

(d) Compare and contrast : liposomal and non-liposomal doxorubicin

(e) Post-transfusion graft versus host disease

(f) Pulmonary blastoma

[KS 020]

Sub. Code : 1304

D.M. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VII — Medical Oncology

**Paper IV — RECENT ADVANCES IN MEDICAL
ONCOLOGY**

Q.P. Code : 161304

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Essay :

1. Discuss the pathophysiology of pain and the advances in the management of acute pain in subjects with cancer. (20)

2. Discuss the status of geriatric assessment in the elderly and briefly elaborate on the treatment of older subjects with colorectal cancer. (20)

II. Short notes : (10 × 6 = 60)

(1) Extreme drug resistance assay

(2) Vulnerable population in clinical research

(3) Bexarotene

(4) Transfusion related acute lung injury

(5) Molecular imaging

(6) Prognostic factors in myelodysplastic syndrome

(7) Differentiating agents

(8) Bortezomib

(9) Preventable cancer

(10) Neuroendocrine tumours.

August 2008

[KT 020]

Sub. Code: 1304

D.M. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VII – Medical Oncology

Paper IV– RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Discuss the pathophysiology of hemopoiesis and the current status of colony stimulating factor in the management of infectious complications in subjects with febrile neutropenia following myelosuppressive chemotherapy.
2. Elaborate the role of molecular targetted therapy in the treatment of squamous cell cancer of the head and neck.

II. Write short notes on:

10 x 6 = 60

1. Directed donation.
2. Ostroarticular allograft.
3. Thrombopoietin.
4. Mammalian target of rapamycin inhibitors (MTOR).
5. Graft versus myeloma effect.
6. Proteasome Inhibitor.
7. Thallium – 201 (Imaging).
8. Terminally ill Children – issue of support.
9. Neurocognitive sequelae of children treated with radiation.
10. Central venous catheter infection.

February 2009

[KU 020]

Sub. Code: 1304

D.M. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VII – Medical Oncology

Paper IV– RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Write short essay on Epigenetics.
2. 'Cancer is a multistep process' Explain this with example of colon cancer.
What could be possible interventions at each step?

II. Write short notes on:

10 x 6 = 60

1. Bortezomib.
2. Treatment of CNS leukemia.
3. T cell non Hodgkin's Lymphoma.
4. Allogeneic stem cell transplantation for immunodeficiency diseases.
5. Role of immunohistochemistry in the diagnosis of unknown primary.
6. Management of Invasive aspergillosis.
7. Treatment of superior venal cava obstruction.
8. Differential diagnosis of ovarian mass in a 15 year old girl.
9. Communication skills in oncology care.
10. Merits and demerits of treatment in asymptomatic early stage prostate cancer.

August 2009

[KV 020]

Sub. Code: 1304

D.M. DEGREE EXAMINATION

(Super Specialities)

(Revised Regulations)

Branch VII – Medical Oncology

Paper IV– RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

2 x 20 = 40

1. Discuss briefly on the recent development in pathology, molecular biology and management of glioblastoma multiforme.
2. Management of imitinib resistant chronic myeloid leukemia.

II. Write short notes on:

10 x 6 = 60

1. K RAS.
2. RECIST PD – 20.
3. Lefatinib.
4. IGRT (image guided Radiotherapy).
5. Multikinase inhibitors.
6. Chemoport.
7. GVHD.
8. Molecular targeted therapy in renal cell carcinoma.
9. Chemoprevention.
10. Management of mesothelioma.

August 2011

[KZ 020]

Sub. Code: 1304

**DOCTORATE OF MEDICINE (D.M.) DEGREE EXAMINATION
(SUPER SPECIALITIES)**

**BRANCH VII – MEDICAL ONCOLOGY
RECENT ADVANCES IN MEDICAL ONCOLOGY
Q.P. Code: 161304**

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages (Max.)	Time (Max.)	Marks (Max.)
-------------------------	------------------------	-------------------------

- | | | | |
|--|----|----|----|
| 1. Discuss in detail Adoptive cell therapy in treatment of Cancer. | 11 | 35 | 15 |
| 2. Discuss the current status of individualized treatment for Cancer (Tailored Therapy) in Medical Oncology. | 11 | 35 | 15 |

II. Write notes on :

- | | | | |
|--------------------------------------|---|----|---|
| 1. Electronic Medical Records. | 4 | 10 | 7 |
| 2. Robotic Surgery in Oncology. | 4 | 10 | 7 |
| 3. Bendamustine. | 4 | 10 | 7 |
| 4. Radiation induced Cardiotoxicity. | 4 | 10 | 7 |
| 5. Olaparib. | 4 | 10 | 7 |
| 6. Image Guided Radiotherapy (IGRT). | 4 | 10 | 7 |
| 7. Genitourinary Rhabdomyosarcoma. | 4 | 10 | 7 |
| 8. Carcinosarcoma of uterus. | 4 | 10 | 7 |
| 9. Thaliomide. | 4 | 10 | 7 |
| 10. Myelofibrosis. | 4 | 10 | 7 |

[LB 020]

AUGUST 2012

Sub. Code: 1304

D.M – MEDICAL ONCOLOGY

Paper – IV RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: 3 hours
(180 Min)

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on:

Pages Time Marks
(Max.)(Max.)(Max.)

- | | | | |
|--|----|----|----|
| 1. Discuss in detail the role Targeted therapy and recent advances in the Systemic Management of Colorectal Cancers. | 16 | 35 | 15 |
| 2. Critically analyse the role and issues regarding Intraperitoneal Chemotherapy in Epithelial Ovarian Cancer. | 16 | 35 | 15 |

II. Write notes on:

- | | | | |
|--|---|----|---|
| 1. Indications and contraindications of Total Parenteral Nutrition in Cancer Patients. | 4 | 10 | 7 |
| 2. Algorithm for Cancer Pain Management. | 4 | 10 | 7 |
| 3. Utility of Erlotinib in Solid Tumour Oncology. | 4 | 10 | 7 |
| 4. Definition and Indications of Haploidentical Stem cell Transplantation. | 4 | 10 | 7 |
| 5. Recent advances in Systemic therapy in Non Small Cell Lung Cancer. | 4 | 10 | 7 |
| 6. Accelerated Approval of Cancer Drugs. | 4 | 10 | 7 |
| 7. Definition and issues involved in Euthanasia and Physician Assisted Suicide. | 4 | 10 | 7 |
| 8. Clinical Indications and Toxicity of Trastuzumab. | 4 | 10 | 7 |
| 9. Recent Advances in the management of Hormone Refractory Prostate Cancer. | 4 | 10 | 7 |
| 10. Current role of PET Scan in patients with Lymphomas. | 4 | 10 | 7 |

D.M. – MEDICAL ONCOLOGY
Paper – IV RECENT ADVANCES IN MEDICAL ONCOLOGY
Q.P.Code: 161304

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Discuss in detail the role of Targeted therapy in Oncology.
2. Indications, contraindications, methodology and side effects of Allogenic bone marrow transplant.

II. Write notes on:

(10X7=70)

1. Nanotechnology in oncology.
2. Active specific immunotherapy for cancer.
3. 3rd generation Pgp (P-glycoprotein) inhibitors.
4. Differentiating agents in the treatment of cancer.
5. HNPCC prevention.
6. Sorafenib.
7. Radiofrequency ablation.
8. Vandetanib.
9. Metronomic chemotherapy.
10. Predictive molecular tests in cancer management.

D.M. – MEDICAL ONCOLOGY
Paper – IV RECENT ADVANCES IN MEDICAL ONCOLOGY
Q.P.Code: 161304

Time: Three Hours

Maximum: 100 marks

I. Elaborate on: **(2X15=30)**

1. Recent advances in treatment of HER 2 Positive Breast cancer.
2. Discuss in detail about cytogenetics, molecular abnormalities, prognostic factors and newer therapies in Acute Myeloid Leukemia.

II. Write notes on: **(10X7=70)**

1. Eribulin.
2. Targeted therapy in Hodgkin's Lymphoma.
3. Ramucirumab in colorectal cancer.
4. Nutritional assessment and intervention in cancer patients.
5. Role of Androgen receptor in breast cancer management.
6. Immunotherapy in malignant melanoma.
7. Comment on Surgery vs Observation following Neo adjuvant chemo radiation in locally advanced rectal cancer.
8. Describe charged particle beams in radiation and mention the advantages and disadvantages of Proton and Carbon beam therapy.
9. Granulosa cell tumours of the ovary.
10. How do you assess cost-effectiveness and use it in decision making?

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P.Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Unique biology of Triple negative breast cancer and targeted agents in the treatment of advanced triple negative breast cancer.
2. Perioperative and Neo adjuvant chemotherapy in Gastric cancer.

II. Write notes on: **(10 x 7 = 70)**

1. Role of radiation therapy in organ preservation.
2. Second malignancies after treatment of Hodgkin lymphoma.
3. Role of chemotherapy in Retinoblastoma.
4. NFkB signalling in Drug resistance-explain with some examples.
5. Myeloid sarcoma and its management.
6. Describe mechanisms of resistance to antiangiogenic therapy.
7. Stereotactic radiosurgery.
8. Emilia trial.
9. Management of ductal carcinoma –in-situ.
10. Chemotherapy in soft tissue sarcoma.

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P.Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the pathology, pathogenesis, risk assessment and treatment of myelodysplastic syndrome.
2. Discuss the role of chemotherapy in early breast cancer.

II. Write notes on:

(10 x 7 = 70)

1. Targeted therapy in colon cancer.
2. Plerixafor.
3. Chemoradiotherapy in rectal cancer.
4. Stopping TKI in CML.
5. Advances in treatment of anaplastic large cell lymphoma.
6. Accelerated drug approval.
7. Management of TKI rash.
8. Empiric therapy of carcinoma of unknown primary.
9. Management of intraocular retinoblastoma.
10. Management of malignant pleural effusion.

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P.Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the role of PET scan in the early stage Hodgkin lymphoma and optimal management.
2. Describe the etiology and molecular profile in the development of gastric cancer and role of targeted therapy.

II. Write notes on:

(10 x 7 = 70)

1. The recent development in the management of malignant Melanoma.
2. The role of Medical Oncologist in the management of operable early Breast cancer.
3. Late Sequelae of Radiotherapy in Hodgkin's lymphoma.
4. Cytotoxic T – Lymphocyte Associated Antibody -4 (CTLA4).
5. Vorinostat.
6. Oligo metastasis.
7. Tositumomab.
8. Recent advances in managing bone pain.
9. Targeted therapy of Flt 3 positive acute myeloid leukemia.
10. Pazopanib.

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P.Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss the check-point inhibitors and its clinical application.
2. Discuss the recent advances in management of chronic myeloid leukemia.

II. Write notes on: **(10 x 7 = 70)**

1. Proton beam therapy.
2. Maintenance rituximab in lymphoma.
3. PI3 kinase and MTOR pathway in breast cancer.
4. Next generation sequencing.
5. Upfront chemotherapy in prostate cancer.
6. Liquid biopsy in cancer.
7. Management of hand foot syndrome.
8. Abiraterone.
9. Recent advances in management of primary CNS lymphoma.
10. Newer drugs in myeloma.

(LL 020)

AUGUST 2017

Sub. Code:1304

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P.Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: (2 x 15 = 30)

1. Pathogenesis, Diagnosis and management of CML and Newer drugs in the treatment of CML.
2. Management of axilla –Role of axillary Lymph Node Dissection vs Sentinel Lymph Node Biopsy.

II. Write notes on: (10 x 7 = 70)

1. Neo-adjuvant Her2 targeted therapy in breast cancer.
2. Early intensification treatment approach in advanced Hodgkin Lymphoma.
3. Rasburicase.
4. Preservation of fertility during chemotherapy for breast cancer.
5. Autologous Bone Marrow Transplant in Multiple Myeloma.
6. Maintenance Therapy in Lung cancer.
7. Comprehensive Geriatric assessment in cancer patients.
8. Cancer related fatigue and its management.
9. Stereotactic Body Radiation In treatment of solid tumours.
10. Deauville criteria for PET.

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P.Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Pathologic evaluation of carcinoma of unknown primary and management of favourable subsets.
2. Molecular subtypes of Breast cancer and management of endocrine resistant breast cancer.

II. Write notes on: **(10 x 7 = 70)**

1. Limb salvage and recent options available for bone sarcomas.
2. Nivolumab.
3. Accelerated partial breast irradiation.
4. Neosphere trial.
5. NCCN evidence blocks – explain with one example.
6. Escalated BEACOPP.
7. Idelalisib.
8. Molecular diagnostic studies in lung cancer.
9. Recommendations for vaccination after Autologous and Allogeneic Hematopoietic cell transplant (HCT).
10. Checkmate – 057 trial.

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P.Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss the Diagnostic criteria of Multiple myeloma and Recent developments in the management of Refractory multiple myeloma.
2. Malignant Melanoma - Diagnosis and Recent Therapeutic Advances.

II. Write notes on: **(10 x 7 = 70)**

1. The role of Androgen Deprivation in Prostate Cancer.
2. Role of JAK 2 inhibitors in myeloproliferative disorders.
3. Molecular pathways in Head and Neck.
4. Immunotherapy in lung cancers.
5. Pediatric RMS Risk stratification.
6. Metastatic soft tissue Sarcoma treatment options.
7. IBRITUMAB.
8. Stereo-static Radio Surgery.
9. Late effect in cancer survivors.
10. Pertzumab.

(LP 020)

AUGUST 2019

Sub. Code: 1304

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: (2 x 15 = 30)

1. Discuss CAR-T cells and its therapeutic implications.
2. Management of locally advanced rectal cancer.

II. Write notes on: (10 x 7 = 70)

1. Stopping TKI in CML.
2. ALK positive lung cancer.
3. Maintenance therapy in ovarian cancer.
4. Metformin in cancer.
5. Therapy induced AML.
6. Juvenile myelomonocytic leukemia.
7. Cancer related haemolytic uremic syndrome.
8. Revised staging and response assessment in lymphoma.
9. NUT midline carcinoma.
10. Recent advances in management of metastatic colon cancer.

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: (2 x 15 = 30)

1. Discuss fertility preservation strategies in cancer.
2. Discuss thromboembolism in cancer, its prevention and treatment.

II. Write notes on: (10 x 7 = 70)

1. Robotic surgery in oncology.
2. Brentuximab.
3. Management of biochemical relapse in ovarian cancer.
4. Olanzapime.
5. Chemotherapy induced cardiac dysfunction.
6. Checkpoint inhibitor toxicity and its management.
7. Merkel cell tumour.
8. Phase IV trials.
9. Pi3k inhibitors.
10. Chemotherapy in stage II colon cancer.

(LR 020)

**NOVEMBER 2020
(AUGUST 2020 SESSION)**

Sub. Code: 1304

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: (2 x 15 = 30)

1. Discuss the role of PARP inhibitors in cancer.
2. Discuss the staging, prognostic factors and management of chronic lymphocytic leukemia.

II. Write notes on: (10 x 7 = 70)

1. Management of stage 1 testicular germ cell tumor.
2. Advantages and disadvantages of second and third generation tyrosine kinase inhibitors over imatinib in newly diagnosed chronic myeloid leukemia.
3. Pregnancy associated breast cancer.
4. Intra-arterial chemotherapy in retinoblastoma.
5. Management of metastatic gastrointestinal stromal tumor (GIST).
6. Venetoclax.
7. Management of acute promyelocytic Leukemia (APML).
8. Non-pharmacological management of pain.
9. Chemotherapy in gastric cancer.
10. National cancer grid of India.

(DM 0821)

AUGUST 2021

Sub. Code: 1304

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the management of high-risk neuroblastoma.
2. Discuss the recent advances in management of her2neu positive breast cancer.

II. Write notes on:

(10 x 7 = 70)

1. Total body irradiation.
2. Sequencing of treatment in epidermal growth factor receptor (EGFR) positive metastatic lung cancer.
3. Role of autologous stem cell transplantation in multiple myeloma.
4. Management of nodular lymphocyte predominant hodgkin lymphoma (NLPHL).
5. Lung cancer screening.
6. Role of adjuvant chemotherapy in endometrial cancer.
7. Role of hyperthermic intraperitoneal chemotherapy (HIPEC) in ovarian cancer.
8. Discuss whether progression free survival is a surrogate marker for overall survival in clinical trials.
9. Recent advances in management of hepatocellular carcinoma.
10. Intravesical immunotherapy and chemotherapy.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0222]

FEBRUARY 2022

Sub.Code :1304

D.M. – MEDICAL ONCOLOGY

Paper IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss the current status of DNA micro array profiling in management of malignant tumour.
2. Recent advances in supportive care in cancer chemotherapy.

II. Write notes on: **(10 x 7 = 70)**

1. Diet and breast cancer.
2. Newer cancer chemotherapy agent for ovarian cancer.
3. Tumor suppressor gene.
4. CNS directed therapy in ALL – current status.
5. Tumor vaccines.
6. Heavy particle beam Radiation therapy.
7. Gene manipulation in Radiotherapy.
8. Vorinostat.
9. Molecular biology of colon cancer.
10. Myeloma response criteria.

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[DM 0223]

FEBRUARY 2023

Sub. Code :1304

D.M. – MEDICAL ONCOLOGY

PAPER IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss about the role of genes involved in mismatch repair (MMR) mechanisms in various cancers. Discuss the various testing modalities of MMR genes and their interpretation. Describe the mechanism of MMR as a biomarker for checkpoint inhibitors.
2. WHO 2022 classification of Myeloid malignancies and describe in detail about the diagnostic investigations, molecular testing, ELN 2022 risk stratification and management of Acute Myeloid Leukemia (AML).

II. Write notes on:

(10 x 7 = 70)

1. BiTE (Bi-specific T-cell engager) – Describe and discuss the drugs.
2. ENDS (Electronic Nicotine Delivery Systems) – Merits and Demerits.
3. Local Ablative therapies in inoperable Hepatocellular Carcinoma
4. ICANS (Immune effector cell-associated Neurotoxicity) Syndrome.
5. Brentuximab vedotin.
6. Define NM-CRPC (Non-Metastatic Castrate-Resistant Prostate Cancer) and describe its treatment.
7. Use of PARP inhibitors in various cancers.
8. Various modalities of T cell depletion in Haploidentical transplantation.
9. Tumor treating fields.
10. Adjuvant therapies in Melanoma.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0225]

FEBRUARY 2025

Sub. Code :1304

D.M. – MEDICAL ONCOLOGY

PAPER IV – RECENT ADVANCES IN MEDICAL ONCOLOGY

Q.P. Code: 161304

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Antibody drug- conjugates in medical oncology practice.
2. Mucosal melanoma.

II. Write notes on:

(10 x 7 = 70)

1. Innovative approaches in treatment of glioma.
2. HIPEC.
3. Immune checkpoint inhibitors in Hodgkins's lymphoma management.
4. Venetoclax.
5. Reduced intensity conditioning regimen in stem cell transplantation.
6. PI3 Kinase pathway inhibitors.
7. SBRT (Stereotactic Body Radiotherapy).
8. Osimertinib.
9. Vaccine preventable cancers.
10. Chemotherapy associated peripheral neuropathy.
