April-2001

[KD 154] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IX — Radiotherapy

Part II — Final

Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Discuss the diagnosis, staging, prognostic factors and current management of testis cancer. Describe the radiotherapeutic techniques used for the treatment of seminoma testes. (25)

2. Describe with the help of a diagram the various levels of cervical lymph nodes. Discuss the diagnosis, management and techniques of irradiation of a patient presented with left level II cervical lymph node metastasis from an unknown primary as Tx N_{2b} Mo. (25)

3. Write briefly on : $(5 \times 10 = 50)$

(a) External beam techniques for retinoblastoma

(b) Boost of lumpectomy site with interstitial implant

(c) Current brachytherapy practice in head and neck malignancies

(d) Apoptosis

(e) Multiple myelom

November-2001

[KE 154] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IX — Radiationtherapy

Part II — Final

Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Time : Three hours **Maximum : 100 marks**

Answer ALL questions.

1. Discuss the clinical approach to malignancies of unknown origin (MUO) in the head and neck region. (25)

2. Discuss the diagnosis and management of carcinoma prostate. Explain the radiation therapy techniques used in the treatment. (25)

3 Write briefly on : (5 × 10 = 50)

(a) SVC obstruction.

(b) WHO ladder.

(c) Hospice care.

(d) Total body radiation.

(e) Malignant Ascitis.

March-2002

[KG 154] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IX — Radiationtherapy

Part II — Final

Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Time : Three hours, Maximum : 100 marks

Answer ALL questions.

1. Discuss the diagnosis and staging of Hodgkins Lymphoma. Outline the treatment strategies in stage 1 A Hodgkins Lymphoma. What are the late effects of treatment? (25)

2. What are the prognostic factors in breast carcinoma? Discuss the treatment strategies in locally advanced breast carcinoma. (25)

3. Write briefly on : $(5 \times 10 = 50)$

   (a) Strontium-89.

   (b) Intraluminal Brachytherapy.

   (c) Radioimmunotherapy.

   (d) Stereotactic radiation therapy.

   (e) Radiation enteritis.

/154] Sub. Code : 2051

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IX — Radiotherapy

Part II — Final

r II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

e : Three hours Maximum : 100 marks

Answer ALL questions.

1. Classify cancers of Thyroid. Discuss the management of papillary cancer thyroid and follicular cancer thyroid briefly. (25)

2. Describe the staging and management of carcinoma uterine cervix. (25)

3. Write briefly on :

(a) Granulosa cell tumour ovary

(b) Iridium 192

(c) Plasmacytoma

(d) Medulloblastoma

(e) Giant cell tumour of bone (5 × 10 = 50)

April-2003

[KI 154] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IX — Radio Therapy

Part II — Final

Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Discuss the pathology and clinical presentations of mediastinal tumours. How will you manage a patient presenting with superior mediastinal syndrome? (25)

2. Discuss the management of an early cancer of uterine cervix in a 40 year old woman. (25)

3. Write short notes on : (5 x 10 = 50)

   (a) Radiation myelopathy

   (b) Radioiodine therapy in Thyroid diseases

   (c) Malignant pleural effusion

   (d) Short lived radionuclides in Brachytherapy

   (e) Basal cell cancer of skin.

[K 154] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IX — Radio Therapy

Part II — Final

Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Time : Three hours — Maximum : 100 marks

Theory : Two hours and Forty minutes — Theory : 80 marks

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

M.C.Q. must be answered **SEPARATELY** on the answer sheet provided as per the instructions on the first page.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions : (2 × 15 = 30)

1. Describe in detail the clinical applications of electron beam therapy.

2. Describe the anatomy, Lymphatic drainage of larynx. How do you manage supraglottic lesion by radiation?

3. Short notes : (10 × 5 = 50)

1. Give a short account on biological considerations in combination of chemotherapy and Radiation.

2. Photo dynamic therapy.

3. Hemi-body irradiation.

4. State with diagram GTV, CTV and PTV.

5. Mantle technique.

6. Write short note on ICRU report No. 38.

7. Comment on HDR Vs. LDR in Brachytherapy.

8. Mention few clinical indications of particulate beam therapy.

9. Mention in brief about Dental Care in Radiotherapy.

10. List out the indication for external radiation in thyroid cancer.

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[KL 154] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IX — Radiotherapy

Part II — Final

Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

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.

Draw suitable diagrams wherever necessary.

I. Essay Questions : (2 × 15 = 30)

(1) Discuss the radiotherapeutic management of a case of carcinoma of uterine cervix stage IB1.

(2) When will you offer breast conservation for a patient with breast cancer? Discuss the role of radiotherapy in that situation.

II. Short notes : (10 × 5 = 50)

(a) Remote after loading technique.

(b) Technique of radiotherapy for T_1 glottic cancer.

(c) HBI.

(d) IORT.

(e) Intraluminal brachytherapy.

(f) EBRT technique for unilateral retinoblastoma (after enucleation).

(g) Box technique.

(h) Principles of palliative radiotherapy.

(i) Craniospinal irradiation.

(j) Role of radiotherapy in Ewing's sarcoma of bone.

[KM 154] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IX — Radiotherapy

Part II — Final

Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

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.

Draw suitable diagrams wherever necessary.

I. Essay questions : (2 × 15 = 30)

(1) Discuss the various irradiation Techniques used for the management of a patient with an early stage prostate cancer.

(2) Classify Tumors of CNS. Write in brief clinical features, diagnostic work up of Intra cranial Tumors. Discuss the role of Stereotactic Radiosurgery in Brain lesions.

II. Short notes : (10 × 5 = 50)

(a) Permanent Implantation.

(b) Remote Alter Loading Devices.

(c) Treatment Techniques for Ca. parotid irradiation.

(d) Radio active lodine Therapy.

(e) Breast Conservation Therapy, In Ca. Breast.

(f) Hyperthermia.

(g) Treatment Technique for early stage Ca. Base of Tongue.

(h) Techniques of irradiation for advanced stage Ca. of uterine cervix.

(i) CNS prophylaxis.

(j) Hemi body irradiation.

[KO 152] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

Branch IX — Radiotherapy

CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

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.

Draw suitable diagrams wherever necessary.

I. Essay questions : (2 × 15 = 30)

(1) Write the histological classification and the Pathologic characteristics of Tumors of the Central Nervous system. Describe the Techniques of Irradiation of Brain Tumors.

(2) Describe the natural history, clinical presentation, Diagnostic work up, staging and treatment of Ca. Of Nasopharynx.

II. Short notes : (10 × 5 = 50)

(a) Management of Ca. in situ Glottic Cancer

(b) Pineoblastoma

(c) Impending Spinal Cord compression

(d) Techniques of irradiation of Orbital Lymphoma

(e) Radiation Cystitis

(f) Lethal midline Granuloma

(g) Criteria for optimal application in Intracavitory Brachytherapy

(h) Prophylacatic Cranial Irradiation

(i) Extramedullary Plasmacytoma

(j) Cervical Lymph node metastasis with un known primary.

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[KP 152] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IX — Radiotherapy

Paper III — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

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.

Draw suitable diagrams wherever necessary.

I. Essay questions :

(1) Classify the tumours of the lung and discuss the management. (20)

(2) Discuss the management of carcinoma breast. (15)

(3) Discuss the management of Seminoma Testis. (15)

II. Short notes : (6 × 5 = 30)

(a) P32

(b) Gamma Knife

(c) Mammography

(d) Technitium 99m

(e) Dental care in Radiotherapy

(f) Simulator.

March-2007

[KQ 139] **Sub. Code : 2051**

M.D. DEGREE EXAMINATION.

Branch IX — Radio Therapy

CLINICAL PRACTICE AND TECHNIQUE OF RADIO THERAPY

Common to

Part II — Final Paper II — (Old/New/Revised Regulations) (Candidates admitted from 1988–89 onwards)

and

Paper — III (for candidates admitted from 2004–2005 onwards)

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.

Draw suitable diagrams wherever necessary.

1. Essay :

(1) Discuss the hormonal management of Breast Cancer. (20)

(2) Discuss Intraluminal brachy therapy. (15)

(3) Discuss Craniospinal irradiation. (15)

II. Short notes : (6 × 5 = 30)

(a) IMRT.

(b) Malignant Ascites.

(c) Tumorlysis syndrome

(d) Genetherapy.

(e) Gammaknife.

(f) Simulator.

[KR 148] **Sub. Code : 2044**

M.D. DEGREE EXAMINATION.

Branch IX — Radiotherapy

Paper III — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

(Candidates admitted from 2004–05 onwards)

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.

Draw suitable diagrams wherever necessary.

I. Essay :

1. Discuss the management of Parotid Salivary gland tumour with emphasis on Radiotherapy Techniques. (20)

2. Write an account on steps involved in treating patients with IMRT Technique. (15)

3. Describe the natural history, clinical presentation, diagnostic workup, staging and treatment of carcinoma of Nasopharynx. (15)

II. Short notes on : (6 × 5 = 30)

(a) 3-D CRT

(b) Tamoxifen

(c) HDR Brachytherapy

(d) RT for pituitary adenomas

(e) Late radiation sequalae in Ca. cervix

(f) Mantle fields.

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MARCH 2008

[KS 142] **Sub. Code : 2037**

M.D. DEGREE EXAMINATION.

Branch IX — Radio Therapy

CLINICAL PRACTICE AND TECHNIQUE OF RADIO THERAPY

Common to all candidates

Q.P. Code : 202037

Time : Three hours Maximum : 100 marks

Answer ALL questions.

I. Long Essay : (2 × 20 = 40)

1. Discuss the investigations and management of an unknown primary with secondary deposits in neck.
2. Discuss the staging of Non Small cell lung cancer and how would you manage a case of stage III inoperable Non Small Cell Lung Cancer.

II. Short notes : (10 × 6 = 60)

1. Biphosphonates.
2. Hormonal therapy in carcinoma prostate.
3. Malignant ascites.
4. CA-125.
5. Choriocarcinoma.
6. Integral dose.
7. Ependymoma.
8. Prognostic factors in carcinoma breast.
9. ALARA
10. Osteoclastoma.

March 2009

[KU 142] **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

Branch IX – RADIO THERAPY
(Candidates admitted upto 2007-2008)

Paper III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY
Q.P. Code : 202037

Time : Three hours **Maximum : 100 marks**

Draw suitable diagram wherever necessary
Answer ALL questions

I. Essay questions : **(2 x 20 = 40)**

1. Give an account of developments in brachytherapy of carcinoma of cervix and their salient features. Add notes on radio biological basis of each them.

2. Describe etiology, pathology, clinical presentation, diagnostic workup and treatment of carcinoma hypopharynx.

II. Write short notes on : **(10 x 6 = 60)**

1. Intra – cranial metastasis.
2. TPS.
3. Cutaneous ‘T’ cell lymphoma.
4. Hormones in breast cancer.
5. IMRT.
6. Mantle field.
7. Simulation in radiotherapy.
8. Retino-blastoma.
9. Ewing sarcoma.
10. Spinal cord compression.

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September 2009

[KV 142] **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

Branch IX – RADIO THERAPY
(Candidates admitted upto 2007-2008)

Paper III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY
Q.P. Code : 202037

Time : Three hours **Maximum : 100 marks**

Draw suitable diagram wherever necessary
Answer ALL questions

I. Essay questions : **(2 x 20 = 40)**

1. Define pain. Discuss in detail the various causes of pain in a cancer patient and their treatment.

2. How would you investigate and treat a patient of carcinoma esophagus middle third. Explain various techniques of radiation.

II. Write short notes on : **(10 x 6 = 60)**

1. Paraneoplastic syndrome.
2. Prognostic factors in thyroid cancer.
3. Malignant spinal cord compression.
4. Neuroblastoma.
5. Radiotherapy in Ewings tumour.
6. PEG feeding.
7. Cranial prophylaxis.
8. Post-operative radiotherapy in endometrial cancer.
9. Mammography.
10. Radiotherapy in early glottic cancer.

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March 2010

[KW 142] **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

Branch IX – RADIO THERAPY
Paper III – (for candidates admitted upto 2007-2008) and
Part II / Paper II – (for candidates admitted from 2008-2009 onwards)

CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY
Q.P. Code : 202037

Time : Three hours **Maximum : 100 marks**

Draw suitable diagram wherever necessary.
Answer ALL questions.

I. Essay questions : **(2 x 20 = 40)**

1. Discuss HDR (High Dose Rate) brachytherapy.

2. Discuss accelerated partial breast irradiation in early breast carcinoma.

II. Write short notes on : **(10 x 6 = 60)**

1. Tumour vaccines.
2. Monoclonal antibody.
3. Chemoprevention.
4. Kaposi's sarcoma.
5. Particle beam radiotherapy.
6. Prophylactic cranial irradiation.
7. Mycosis fungoides.
8. Gamma knife.
9. Endovascular brachytherapy.
10. Tomotherapy.

*****

September 2010

[KX 142] **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

Branch IX – RADIO THERAPY

CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Paper III – (for candidates admitted upto 2007-2008) and
Part II - Paper II - (for candidates admitted from 2008-2009 onwards)

Q.P. Code : 202037

Time : Three hours **Maximum : 100 marks**

Draw suitable diagram wherever necessary.
Answer ALL questions.

I. Essay questions : **(2 X 20 = 40)**

1. How do you manage a care of Glioblastoma multiformae in Adult?

2. Describe with diagram the radiotherapy technique in the treatment of Nasopharyngeal Cancer.

II. Write short notes on : **(10 X 6 = 60)**

1. Vaccine in Carcinoma Cervix.
2. Breast cancer screening programme.
3. Radiotherapy in early glottic cancer.
4. Medullary Thyroid Cancer.
5. Particle beam radiotherapy.
6. Epidemiology and Risk factors in carcinoma oesophagus.
7. Familial Cancer.
8. Breast conservation therapy.
9. Intra-operative Radiotherapy.
10. Chemo-radiation of Anal Cancer.

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MAY 2011

[KY 142] **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P. Code : 202037

Time : 3 hours **Maximum : 100 marks**
(180 Min)

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. What are the indications for postoperative radiotherapy in soft tissue sarcoma and describe in detail postoperative radiotherapy techniques in a patient with soft tissue sarcoma of the thigh.	11	35	15
2. Describe with illustration the radiotherapy techniques that can be used in the management of a patient with carcinoma of the right maxilla.	11	35	15
II. Write notes on :			
1. Glomus tumours in the head and neck region.	4	10	7
2. Tumour related common pain syndromes.	4	10	7
3. Post operative radiotherapy for meningioma.	4	10	7
4. Inflammatory breast cancer.	4	10	7
5. Brachytherapy treatment options for patients with carcinoma of the prostate.	4	10	7
6. TSET.	4	10	7
7. Chemoirradiation in head and neck cancer.	4	10	7
8. Management of stage 3 carcinoma of the rectum.	4	10	7
9. Management of stage 2 carcinoma of the vagina.	4	10	7
10. SVCO.	4	10	7

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October 2011

[KZ 142] **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P. Code : 202037

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. Describe the various levels of nodal involvement in various sites of head and neck cancers and the rationale of role of combined modality approach in neck nodal management.	11	35	15
2. Describe the etiology, clinical features, pathology and management of cancer stomach.	11	35	15
II. Write notes on :			
1. Cancer ethmoid.	4	10	7
2. Nonseminomatous germ cell tumours.	4	10	7
3. Rationale of multiple fields in radiation therapy.	4	10	7
4. Radiation techniques in cancer bladder.	4	10	7
5. Rationale of using different energy beams radiation therapy practice.	4	10	7
6. Cyber Knife.	4	10	7
7. Stereotactic radiation in clinical applications.	4	10	7
8. Paraneoplastic syndromes.	4	10	7
9. Role of immunohistochemistry in oncological treatment decision.	4	10	7
10. Gene therapy.	4	10	7

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APRIL 2012

[LA 142] **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY
Q.P. Code : 202037

Time : 3 hours **Maximum : 100 marks**
(180 Min)

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Describe in detail the radiotherapy management of brain tumors.	16	35	15
2. Describe the etiopathology, clinical features and management of Nasopharyngeal carcinomas.	16	35	15

II. Write notes on :

1. Describe the Adjuvant Radiation therapy.	4	10	7
2. Describe the management of SVC Obstruction.	4	10	7
3. Describe the Involved field Radiation therapy.	4	10	7
4. Describe the management of Orbital tumors.	4	10	7
5. Describe the management of Vaginal Cancer.	4	10	7
6. Describe the management of Osteoclastoma.	4	10	7
7. Describe the Role of RT in Acute Lymphatic Leukemia.	4	10	7
8. Describe the preoperative RT in cancer rectum.	4	10	7
9. Describe the Intra operative Radiotherapy.	4	10	7
10. Describe the primary Neutron therapy indications.	4	10	7

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(LC 142) **APRIL 2013** **Sub. Code: 2037**

M.D. DEGREE EXAMINATION
BRANCH IX-RADIO THERAPY

CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAY

Q.P.Code: 202037

Time: Three Hours **Maximum: 100 marks**

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

1. Describe the management of cancer cervix stage IIIA.

2. Discuss the management of cancer cervical Oesophagus.

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

1. Describe the Dermatofibrosarcoma of the abdominal wall
2. Describe the management of Cancer vulva stage II
3. Describe the Tumor lysis syndrome and its management
4. Describe the management of Craniopharyngioma I
5. Describe the treatment of Adenocarcinoma Lung stage II
6. Describe the Intraoperative Radiotherapy
7. Describe the Interstitial Implantation floor of mouth
8. Describe the Cancer External Auditory canal
9. Describe the Bloom Richardson staging system
10. Describe the Brachy therapy of cancer Prostate

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(LE 142) **APRIL 2014** **Sub. Code:2037**

M.D. DEGREE EXAMINATION
BRANCH IX - RADIO THERAPY

CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P.Code: 202037

Time: Three Hours **Maximum: 100 marks**

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

1. Describe in detail the radiotherapy management of brain tumors.

2. Describe the etiopathology, clinical features and management of Nasopharyngeal carcinomas.

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

1. Describe the Adjuvant Radiation therapy.
2. Describe the management of SVC Obstruction.
3. Describe the Involved field Radiation therapy.
4. Describe the management of Orbital tumors.
5. Describe the management of Vaginal Cancer.
6. Describe the management of Osteoclastoma
7. Describe the Role of RT in Acute Lymphatic Leukemia.
8. Describe the preoperative RT in cancer rectum.
9. Describe the Intra operative Radiotherapy.
10. Describe the primary Neutron therapy indications.

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[LG 142] **APRIL 2015** **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P.Code: 202037

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions

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

1. Describe the management of Differentiated Thyroid cancer and anaplastic thyroid cancer.
2. Discuss Oncologic emergencies and their management by radiation.

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

1. Describe the role of radiation in the management of secondary neck nodes.
2. Describe the management of Ependymoma.
3. Integral Dose.
4. Describe the management of Medulloblastoma.
5. Biological basis of Chemoradiation.
6. Describe the management of second malignancy in the pelvis in a case of carcinoma cervix treated with radiation.
7. Describe the management of Ewing's sarcoma.
8. Image based Brachytherapy.
9. Describe the significance of sentinel node biopsy.
10. Describe the management of Solitary Plasmacytoma.

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(LI 142) APRIL 2016 **Sub. Code:2037**

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P.Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. Classify brain tumors. Discuss the management of medulloblastoma.
2. Describe in detail the etiology, pathology, clinical features, imaging and multimodality treatment of carcinoma rectum .

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

1. Triple negative breast cancer.
2. Gamma Knife.
3. Premalignant conditions of oral cavity and management – IGRT.
4. Immobilisation in Radiotherapy.
5. List the benign lesions treated with radiotherapy. Discuss in detail management of one of the benign lesions.
6. Describe the indications of radiotherapy in parotid malignancies and Explain the technique with suitable diagram.
7. Management of Ewing's sarcoma.
8. Superior vena cava syndrome.
9. Management of stage I seminoma testis.
10. Rapid Arc Technique.

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(LK 142) MAY 2017 **Sub. Code:2037**

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P.Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss the treatment options for carcinoma prostate stage $T_1N_0M_0$ with Gleason's score 8.

2. Discuss the management of undifferentiated carcinoma nasopharynx $T_3N_2M_0$ in a 16 year old boy.

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

1. Role of Radiotherapy in Acute Lymphoblastic Leukemia.
2. Role of immunohistochemistry in breast cancer with its implications on management.
3. LENT–SOMA Scale in Head and neck radiotherapy.
4. Indications and technique of post operative radiotherapy in carcinoma of Maxilla.
5. Discuss the role of radiotherapy in Wilm's tumor along with technique and dose prescription.
6. Discuss management of localized soft tissue sarcoma of thigh.
7. Technique of Radiotherapy for Craniophayrngioma.
8. Management of $T_2N_1M_0$ limited stage small cell carcinoma of lung.
9. Evaluation and management of 30 year old gentleman presenting with bleeding per rectum, altered bowel habits and weight loss.
10. Stereotactic Radio therapy and its clinical application.

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[LM 142] MAY 2018 **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P.Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. Describe the role of Radiation in the management of Seminoma Testes.
2. Describe the Management of cancer Maxillary antrum stage $T_3N_0M_0$.

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

1. Describe the prognostic factors in cancer breast.
2. Describe the hormonal management of cancer Prostate.
3. Describe the management of endometrial cancer.
4. Describe the management of bone secondaries.
5. Describe the role of Radiation in the management of Wilms tumor.
6. Breast Conservation therapy.
7. Describe the management of Retroperitoneal tumors.
8. Role of Radiotherapy in $T_3N_1M_0$ non small cell lung cancer in left upper lob.
9. Describe the Management of cancer Penis $T_1N_0M_0$.
10. Describe the management of Basal cell Carcinoma.

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[LO 142] MAY 2019 **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P. Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. Describe the staging and evaluation of carcinoma anal canal. Discuss the various radiotherapy technique.

2. A young adult male with carcinoma tongue anterior 2/3 T2N0 M0. Discuss the role of external beam radiotherapy and brachytherapy.

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

1. Inverse planning.
2. Systems of implant dosimetry.
3. Chemoradiation in carcinoma nasopharynx.
4. Basal cell carcinoma management.
5. Tumour markers in gynacological malignancies.
6. Role of PET scan in oncological practice.
7. Management of glioblastoma multiforme.
8. Methods of contour in treatment planning.
9. Role of radiotherapy carcinoma prostate.
10. Define sensitivity, specificity and predictive value of a cancer screening test. Discuss screening programme for cancer breast.

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[LQ 142] AUGUST 2020 **Sub. Code: 2037**

(MAY 2020 SESSION)

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P. Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. Molecular classification of medulloblastoma. How do you risk stratify medulloblastoma and explain its importance in management? Explain with suitable diagram the radiation therapy techniques.

2. Discuss the aetiology classification, evaluation of testicular tumour and management of seminoma and radiotherapy techniques.

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

1. Role of immunohistochemistry and molecular typing in the diagnosis of lung cancers. Discuss the management of T2N1M0 limited stage small cell carcinoma of lung.
2. Management of non-metastatic Ewing's sarcoma of left distal Femur in a 16-year-old girl.
3. Role of radiation therapy in localised Rhabdomyosarcoma of left maxillary region in a 2-year-old child.
4. Radiotherapy techniques and prescription for Craniopharyngioma
5. List the benign lesions treated with radiotherapy. Discuss in detail management of one of the benign lesions.
6. Mammogram
7. Toxicity grading in head and neck radiotherapy. List the management of grade III mucositis. What is the role of advanced techniques in reducing toxicity in head and neck radiotherapy?
8. WHO step ladder in pain management. Discuss the tools available for monitoring pain.
9. Radiation therapy technique for locally advanced inoperable carcinoma of head of pancreas
10. Define tumor lysis syndrome. Discuss management of tumor lysis syndrome

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[LS 142] NOVEMBER 2020 **Sub. Code: 2037**

(OCTOBER 2020 SESSION)

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P. Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. How will you manage a 35-year-old diagnosed to have carcinoma uterine cervix stage IB.? What are the complications of pelvic irradiation and how will you manage them?

2. A 16-year-old boy from North East part of India presenting with epistaxis, following evaluation diagnosed to have undifferentiated carcinoma nasopharynx T3N2M0. Discuss the management.

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

1. Involved Field Radiotherapy (IFRT) and Involved Site Radiotherapy (ISRT) in the management of Hodgkin's Lymphoma
2. Barium Swallow
3. What are the methods of APBI in practice? What are the patient selection criteria for APBI?
4. Describe how anatomy and lymphatic drainage plays an important role in radiation treatment planning? Exemplify it with treatment of "glottic carcinoma".
5. Twelve-year-old girl presenting with symptoms of raised intracranial tension. MRI shows a mass lesion in the region of pineal gland. How will you proceed with the management of the child?
6. HPV and oropharyngeal cancers
7. How will you proceed with evaluating a 55-year-old smoker diagnosed to have Secondaries in liver?
8. Discuss the radiobiological rationale for altered fractionation schedules
9. How will you select a patient with brain metastases for Stereotactic Radio Surgery?
10. Risk grouping of Meningioma and its radiation therapy management based on risk grouping

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[MD 0721] JULY 2021 **Sub. Code: 2037**

(MAY 2021 SESSION)

M.D. DEGREE EXAMINATION

BRANCH IX – RADIATION ONCOLOGY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P. Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss in detail the management of recurrent ovarian carcinomas.

2. Discuss the rationale for concurrent chemoradiation and the sites in which it has an important role with evidence.

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

1. Colony stimulating factor.
2. Function preservation in management of malignant tumours.
3. Vinca alkaloids.
4. Chemotherapy for small cell lung cancer.
5. Advantages and limitations of proton beam therapy.
6. Meta analysis.
7. Management of radiation cystitis.
8. P 16.
9. Event free survival.
10. Dose volume histogram.

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

[MD 0522] **MAY 2022** **Sub. Code: 2037**

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

BRANCH XXVI – RADIATION ONCOLOGY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P. Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss various fractionation Schedules and note on Hypo fractionated RT in Ca Breast with evidences.

2. Classify soft tissue Sarcomas, Discuss Indications of RT in STS. Describe in detail post Operative Radiotherapy techniques in a patient with STS of thigh.

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

1. Management of Ca Maxi Antrum.
2. BT treatment options for patient with prostate.
3. Management of T3N0M0 of carcinoma Esophagus extending from f40 top 36cm.
4. Organ Conservation.
5. How do you treat and prevent xerostomia.
6. ISBT in Carcinoma Cervix.
7. IGRT.
8. Role of RT in leukemia & Lymphoma.
9. Discuss treatment of papillary Ca thyroid.
10. Management of Wilm's Tumour.

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

[MD 1022] OCTOBER 2022 Sub. Code: 2037

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P. Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. Write histological classification and pathology characteristics of CNS tumours. Describe the management and techniques of irradiation of Grade III Astrocytoma.

2. Classify and Discuss Management of Parotid Salivary gland tumour with emphasis on RT technique.

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

1. Management of Stage-1 Carcinoma larynx.
2. SRS.
3. Stage-IIA testicular Ca.
4. Role of PET in Cancer Management.
5. Treatment of Radiation Proctitis.
6. Management of pituitary adenoma.
7. Chemo radiation in Head & Neck Cancer.
8. RT in Extraosseous Ewings Sarcoma.
9. PEG feeding.
10. Meta analysis.

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

[MD 0723] JULY 2023 Sub. Code: 2037

(MAY 2023 EXAM SESSION)

M.D. DEGREE EXAMINATION

BRANCH IX – RADIO THERAPY

BRANCH XXVI - RADIATION ONCOLOGY

PAPER III – CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY

Q.P. Code: 202037

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss the various indications of Radiotherapy for small cell lung cancer. Explain in detail about the Radiotherapy Techniques for Stage III Small Cell Lung Cancer (SCLC).

2. Discuss in detail about risk stratification of carcinoma prostate and the management of High risk prostate Adenocarcinoma.

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

1. Organ preservation.
2. Mucosal melanoma.
3. Palliative RT in bone metastases.
4. Diagnostic evaluation for nasopharynegeal carcinoma.
5. Involved field Radiotherapy (IFRT) for Hodgkin's Lymphoma.
6. Radiotherapy techniques for Pituitary adenoma.
7. Management of Hypercalcemia.
8. Targeted therapy for Metastatic renal cell carcinoma.
9. OAR dose constraints in whole breast irradiation.
10. Brachytherapy in Carcinoma Lip.

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