#### **APRIL 2001**

# [KD 1519]

Sub. Code: 3027

# DIPLOMA IN MEDICAL RADIOLOGY — THERAPY EXAMINATION.

(New Regulations)

## Paper III — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

Time: Three hours

Maximum: 100 marks

#### Answer ALL questions.

- 1. Describe the management of Carcinoma Endometrium. (25)
- 2. Describe the classification of Soft Tissue Sarcomas Describe the management of Rhabdomyo Sarcoma in the Child and Adult. (25)
- 3. Write short notes on:

 $(5 \times 10 = 50)$ 

- (a) Retinoblastoma
- (b) Gene Therapy
- (c) Plasmacytoma
- (d) Kaposis' sarcoma
- (e) Interferon.

#### **NOVEBER 2001**

## [KE 1519]

Sub. Code: 3027

# DIPLOMA IN MEDICAL RADIOLOGY – THERAPY EXAMINATION.

(New Regulations)

#### Paper III — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

Time: Three hours Maximum: 100 marks

#### Answer ALL questions.

- 1. Discuss: Palliative radiotherapy in the management of metastatic disease. (25)
- 2. Enumerate the pathology, routes of spread, staging and treatment of retinoblastoma. (25)
- 3. Write briefly on:  $(5 \times 10 = 50)$
- (a) Combination of Radiotherapy and Chemotherapy
  - (b) Hodgkin's disease
  - (c) Various effects of irradiation of the ovary
- (d) Dose specifications for interstitial radiotherapy
  - (e) Management of cancer cervix with pregnancy.

## [KG 1519]

Sub. Code: 3027

# DIPLOMA IN MEDICAL RADIOLOGY – THERAPY EXAMINATION.

(New Regulations)

Part II

## Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

- 1. How do you classify brain tumours? Discuss the management of a child with meduloblastoma? (25)
- 2. What are non-metastatic manifestations of malignant diseases? Illustrate their importance in the management of cancer? (25)
- 3. Write short notes on:

 $(5 \times 10 = 50)$ 

- (a) Bis-Phosphonates.
- (b) Intravascular brachytherapy.
- (c) CA 125.
- (d) Monoclonal antibodies.
- (e) Chemo radiotherapy.

## **SEPTEMBER 2002**

## [KH 1519]

Sub. Code: 3027

## DIPLOMA IN MEDICAL RADIOLOGY-THERAPY EXAMINATION.

(New Regulations)

#### Paper III — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

- 1. Enumerate the clinical applications and the normal tissue reactions of electron beam. (25)
- 2. Discuss the pathologic classifications, growth characteristics and treatment techniques of malignant tumors of salivary glands. (25)
- 3. Write briefly on:

 $(5 \times 10 = 50)$ 

- (a) Conformal therapy
- (b) Mantle field technique
- (c) Clinical applications of remote after loading systems of Ir-192
- (d) Contraindications to the radiotherapy of intracranial tumors
  - (e) Bleomycin.

#### OCTOBER 2003

[KJ 1519]

Sub. Code: 3027

## DIPLOMA IN MEDICAL RADIOLOGY THERAPY EXAMINATION.

(New Regulations)

Part II

# Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

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

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

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay Questions :

 $(2 \times 15 = 30)$ 

- Describe the anatomy of Nasopharynx.
   Discuss the clinical signs and symptoms and radio therapeutic management of Nasopharyngeal carcinoma.
- (2) Discuss the etiological factors for cancer oesophagus. Describe the role of radiotherapy in the management of cancer of middle  $\frac{1}{3}$  of oesophagus.

II. Write short notes on :

 $(10 \times 5 = 50)$ 

- (1) Combination chemotherapy of Hodgkin's disease.
  - Medullary carcinoma of Thyroid.
  - (3) Radiotheraphy of Ca Endometrium.
  - (4) Hormone therapy of Ca prostate.
  - (5) Tumor markers in Ca ovary.
  - (6) Hormone receptors in Ca Breast.
- (7) Prophylactic cranial irradiation in small cell Lung cancer.
  - (8) Performance Status
  - (9) Moving strip technique.
  - Intraluminal Brachytherapy.

#### **AUGUST 2004**

[KL 1519]

Sub. Code: 3027

## DIPLOMA IN MEDICAL RADIOLOGY THERAPY EXAMINATION.

(New Regulations)

#### Part II

## Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

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.

Draw diagrams wherever needed.

#### I. Essay question :

 $(2 \times 15 = 30)$ 

- Describe the classification of Brain tumours.
   Describe the radio therapeutic management of pituitary tumour.
- (2) Describe anatomy of Nasopharynx. Describe clinical signs symptoms and Radiotherapeutic management of cancer Nasopharynx.

II. Write short notes:

 $(10 \times 5 = 50)$ 

- (a) Oral Morphine.
- (b) Iridium in Brachy therapy.
- (c) Xerodarma Pigmentosum.
- (d) Para Aortic Node involvement in carcinoma cervix.
  - (e) Radioactive phosphorus. (P 32)
  - (f) Spermatocytic seminoma.
- (g) Aromatase inhibitors (hetrozole) in Breast cancer.
  - (h) Hormone therapy in prostate cancer.
  - (i) Chemotherapy in Wilm's tumour.
  - Tumour markers in cancer ovary.

#### **FEBRUARY 2005**

[KM 1519]

Sub. Code: 3027

## DIPLOMA IN MEDICAL RADIOLOGY THERAPY EXAMINATION.

(New Regulations)

#### Part II

## Paper II — CLINICAL PRACTICE AND TECHNIQUE OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

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.

Draw suitable diagram wherever necessary.

## I. Essay :

 $(2 \times 15 = 30)$ 

- (1) Discuss the investigation and staging of a patient with Hodgkin's disease. How would you treat a young man aged 26 years with stage IA Hodgkin's disease in one Inguinal lymph node?
- (2) Classify soft tissue sarcomas and its staging. Discuss the role of radiation in the management of soft tissue sarcoma of arm.

I. Short notes :

 $(10 \times 5 = 50)$ 

- (a) Prostate Specific Antigen.
- (b) Adriamycin.
- (c) Dysgerminoma.
- (d) Pap smear.
- (e) p53.
- (f) Mycosis fungoides.
- (g) Paclitaxel.
- (h) Half Life.
- (i) Prognostic factors in Carcinoma of Breast.
- Staging of Carcinoma of Uterine Endometrium.

# [KO 1519] Sub. Code: 3027

## DIPLOMA IN MEDICAL RADIOLOGY THERAPY EXAMINATION.

## CLINICAL PRACTICES AND TECHNIQUE OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

Time: Three hours Maximum: 100 marks

Theory: Two hours and Theory: 30 marks

forty minutes

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

#### Answer ALL questions.

Draw suitable diagrams wherever necessary.

- I. Essay:  $(2 \times 15 = 30)$
- Discuss the role of radiotherapy in early Breast Cancer.
- (2) Classify CNS tumors. Discuss the management of high grader gliomas.
- II. Short notes:  $(10 \times 5 = 50)$ 
  - (a) Docetaxel.
  - (b) Emission tomography.

- (c) Basal cell carcinoma.
- (d) Hypercalcemia,
- (e) Aromatase inhibitors.
- (f) Nephroblastoma.
- (g) Craniospinal radiation.
- (h) Sentinel Node biopsy.
- Principles of mould therapy.
- (j) Monoclonal antibodies.

B<u>\_\_\_\_\_</u>

[KQ 1519]

Sub. Code: 3027

## DIPLOMA IN MEDICAL RADIOLOGY THERAPY EXAMINATION

Paper III – CLINICAL PRACTICES AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Common to

(Candidates admitted from 1993-94 onwards)

and

(Candidates admitted from 2004-05 onwards)

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.

Draw suitable diagrams wherever necessary.

- I. Essay:
- Describe in detail the role of radiotherapy in lymphomas and leukemia's. (20)
- Discuss prognostic factors and role of radiotherapy in carcinoma of the prostate. (15)
- Describe management of Early Breast Cancer with details of Radiotherapy indications and techniques. (15)

II. Short notes:

 $(6 \times 5 = 30)$ 

- Beam modification in radiotherapy.
- (b) Pegulated doxorubicin.
- (c) Cancer genetics.
- (d) Management of middle third carcinoma of Esophagus.
  - (e) Biological therapies.
  - (f) Temozolamide.

[KS 1519] Sub. Code: 3027

DIPLOMA IN MEDICAL RADIOLOGY THERAPY EXAMINATION.

Paper III — CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

(Common to all Regulations)

Q.P. Code: 343027

Time: Three hours Maximum: 100 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I.

 $(2 \times 20 = 40)$ Write essay on:

- Discuss the merits and demerits of Hypo fractionation with appropriate examples.
- Discuss the role of radiotherapy in benign diseases. (2)
- Π. Write short notes on:

 $(10 \times 6 = 60)$ 

- (1)Carbon Ion radiotheraphy.
- (2)Steriostatic Radio surgery.
- Rituximab. (3)
- (4)Implant Rules.
- ICRU 38. (5)
- (6)LQ Model.
- (7)Prodromal Radiation Syndrome.
- 2<sup>nd</sup> malignancy (8)
- (9)Spinal cord tolerence.
- (10) Radiation mucositis.

# September 2008

[KT 1519] Sub. Code: 3027

# DIPLOMA IN MEDICAL RADIO THERAPY EXAMINATION.

# Paper III – CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

(Common to all candidates)

Q.P. Code: 343027

Time: Three hours Maximum: 100 marks

# Draw suitable diagram wherever necessary. Answer ALL questions.

# I. Essay questions:

 $(2 \times 20 = 40)$ 

- 1. Write about carcinoma of vulva and its treatment guidelines.
- 2. Write about adverse cutaneous effects of cancer chemotherapeutic agents and its management.

#### II. Write short notes on:

 $(10 \times 6 = 60)$ 

- 1. CA 125.
- 2. AIDS related lymphomas.
- 3. Modification of Radio sensitivity.
- 4. Tolerance doses of the following with its importance
  - (a) Liver
- (b) Lens eye (c) Kidney (d) Retina
- 5. Oncogenes.
- 6. Oxaliplatin.
- 7. Paclitaxal.
- 8. BRCA 1 & 2.
- 9. Inflamatory Ca of breast.
- 10. IMRT.

#### **MARCH -2009**

[KU 1519] Sub. Code: 3027

# DIPLOMA IN MEDICAL RADIO THERAPY EXAMINATION.

# Paper III – CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

(Common to all candidates)

Q.P. Code: 343027

Time: Three hours Maximum: 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

- I. Essay questions :  $(2 \times 20 = 40)$ 
  - 1. Discuss the classification and staging of ovarian malignancies. How will you manage a stage III C epithelial ovarian carcinoma?
  - 2. Discuss the AJCC staging of glottis cancer. How will you work up and diagnose a patient who is suspected to have Carcinoma of larynx. With suitable diagrams explain the planning techniques and complications in radiation treatment of TI Glottic cancer.

#### II. Write short notes on : $(10 \times 6 = 60)$

- 1. Management of stage II A Testicular Seminoma.
- 2. Cranio spinal irradiation indications and techniques.
- 3. Neuroblastoma.
- 4. Breast conservation treatment of breast cancer.
- 5. General outline in the management of CML.
- 6. R-CHOP.
- 7. Management of early nasopharyngeal carcinoma.
- 8. Three year old child with medulloblastoma. How will you investigate and manage.
- 9. Paediatric genitourinary Rhabdomyosarcoma.
- 10. Newer trends in management of multiple myeloma.

[KV 1519] Sub. Code: 3027

# DIPLOMA IN MEDICAL RADIO THERAPY EXAMINATION.

# Paper III – CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

(Common to all candidates)

Q.P. Code: 343027

Time: Three hours Maximum: 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions:  $(2 \times 20 = 40)$ 

- 1. Classify cancer chemotherapeutic agents and the role of hormonal agents in malignancy.
- 2. Outline treatment and planning of prostatic carcinoma.

## II. Write short notes on : $(10 \times 6 = 60)$

- 1. Radio sensitivity.
- 2. Side effects of radiotherapy.
- 3. Monoclonal antibodies.
- 4. Xerostomia.
- 5. Alpha feto protein.
- 6. Beams eye view.
- 7. Back scatter.
- 8. Pancoast tumor.
- 9. Iridium 192.
- 10. Carcinoid syndrome.

#### March 2010

[KW 1519] Sub. Code: 3027

# DIPLOMA IN MEDICAL RADIO THERAPY EXAMINATION

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

(Common to all candidates)

Q.P. Code: 343027

Time: Three hours Maximum: 100 marks

# Draw suitable diagram wherever necessary

# **Answer ALL questions**

# I. Essay questions:

 $(2 \times 20 = 40)$ 

- 1. Discuss the staging of seminoma testis. How will you work up a patient with testicular malignancy? Explain the treatment of stage II A seminoma testis. Write the radiation techniques in detail with suitable diagrams.
- 2. Discuss the anatomy of maxillary antrum. What is the staging of maxillary antrum carcinoma? Explain the role of radiation treatment and technique of radiation with diagrams.

#### II. Write short notes on:

 $(10 \times 6 = 60)$ 

- 1. Preoperative radiation in rectal cancer.
- 2. FOLFOX schedule.
- 3. Discuss the management of Wilm's tumour.
- 4. Disseminated intravascular coagulation in cancer.
- 5. Mechanism of action of capecitabine.
- 6. Medullary carcinoma thyroid.
- 7. General outline in the management of CML.
- 8. Discuss the management of grade III astrocytoma frontal lobe.
- 9. Iridium 192
- 10. MIBI scan.

[KX 1519] Sub. Code: 3027

# DIPLOMA IN MEDICAL RADIO THERAPY (D.M.R.T.) EXAMINATION.

Part II-Paper II Candidates admitted from 2008-09 onwards And

Paper III for Candidates admitted from 2004-05 to 2007-08

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

Time: Three hours Maximum: 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

# I. Essay questions:

 $(2 \times 20 = 40)$ 

- 1. Describe in detail the total management of early breast carcinoma in a 32 years old premenopausal patient.
- 2. Discuss the role and technique of permanent Interstitial Brachytherapy and IMRT in carcinoma prostate.

#### II. Write short notes on:

 $(10 \times 6 = 60)$ 

- 1. Image guided radiotherapy.
- 2. Total skin electron therapy.
- 3. Hyperthermia in radiotherapy.
- 4. Radiation menopause.
- 5. Post operative radiation in carcinoma maxilla.
- 6. Role of PET scan in radiotherapy.
- 7. General outline in the management of CML.
- 8. Small cell lung cancer.
- 9. Neoadjuvant chemotherapy.
- 10. Paclitaxel.

## **APRIL 2011**

[KY 1519] Sub. Code: 3027

# DIPLOMA IN MEDICAL RADIO THERAPY (DMRT) EXAMINATION

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

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. Discuss management of Carcinoma Maxillary Antrun	n. 11	35	15
2. Discuss the role of Radiotherapy and Techniques in Medulloblastoma.	11	35	15
II. Write notes on:			
1. Role of PET scan in Radiotherapy.	4	10	7
2. Intraluminal radiotherapy.	4	10	7
3. Intensity Modulated radiotherapy.	4	10	7
4. Mantel Technique.	4	10	7
5. Hydroxy urea.	4	10	7
6. Megestrol.	4	10	7
7. Carboplatin.	4	10	7
8. Non-Hodgkin's Lymphoma.	4	10	7
9. High dose chemotherapy.	4	10	7
10. Concurrent chemotherapy and Radiotherapy.	4	10	7

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

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. Discuss the management of Cancer Breast T3N1M0 in a premenopausal lady with Her2neu positive, ER and PR Positive.		35	15
2. Discuss the combined modality management in Head and neck cancer.	16	35	15
II. Write notes on :			
1. Describe the management of Cancer Endometrium.	4	10	7
2. Describe the Chemotherapy in Testicular tumors.	4	10	7
3. Describe the Chemotherapy in Multiple Myeloma.	4	10	7
4. Discuss the Prophylactic Radiation in Small Cell Lung Cand	er. 4	10	7
5. Describe the management of Neuroblastoma.	4	10	7
6. Describe the schedules of Docetaxel.	4	10	7
7. Describe the role of Rituximab in lymphomas.	4	10	7
8. Describe the Involved Field Radiation.	4	10	7
9. Describe the management of Medullary Carcinoma Thyroid	. 4	10	7
10. Describe the management of Bone Secondaries.	4	10	7

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

Time: Three Hours Maximum: 100 marks

I. Elaborate on: (2X15=30)

1. Describe the management of high grade gliomas.

2. Describe the management of cancer lower third oesophagus.

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

- 1. Describe the management of muscle invasive bladder cancer.
- 2. Describe the nodal management in cancer Penis.
- 3. Describe the role of Brachytherapy in cancer breast.
- 4. Describe the perineal implantation.
- 5. Describe the role of Radiation in cancer rectum.
- 6. Describe the role of Radiation in skin cancers.
- 7. Describe the management of cancer external auditory canal.
- 8. Describe the beam modifying devices used in cancer maxillary Antrum.
- 9. Describe the role of Chemotherapy in small cell lung cancer.
- 10.Describe the management of Osteogenic Sarcoma.

# DIPLOMA IN MEDICAL RADIO THERAPY (DMRT) EXAMINATION CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P.Code: 343027

Time: Three Hours Maximum: 100 marks

I. Elaborate on: (2X15=30)

1. Discuss the management of Cancer Breast T3N1M0 in a premenopausal lady with Her2neu positive. ER and PR Positive.

2. Discuss the combined modality management in Head and neck cancer.

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

- 1. Describe the management of Cancer Endometrium.
- 2. Describe the Chemotherapy in Testicular tumors.
- 3. Describe the Chemotherapy in Multiple Myeloma.
- 4. Discuss the Prophylactic Radiation in Small Cell Lung Cancer.
- 5. Describe the management of Neuroblastoma.
- 6. Describe the schedules of Docetaxel.
- 7. Describe the role of Rituximab in lymphomas.
- 8. Describe the Involved Field Radiation.
- 9. Describe the management of Medullary Carcinoma Thyroid.
- 10. Describe the management of Bone Secondaries.

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

Time: Three Hours Maximum: 100 marks

**Answer ALL questions** 

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Discuss management of carcinoma Maxillary antrum.

2. Discuss management of seminoma Testis stage I and the role of radiation.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. Paclitaxel.
- 2. Role of Chemotherapy in retinoblastoma.
- 3. Kaposi's sarcoma.
- 4. Antioxidants.
- 5. Partial breast irradiation.
- 6. Gemcitabine.
- 7. Dose volume histogram.
- 8. Mantle field.
- 9. Management of emesis during chemo radiation.
- 10. Prophylactic cranial irradiation.

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P.Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Targeted therapy in treatment of cancer.

2. Management of Unknown Primary with Secondary neck and the role of Radiation.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. Nutrition during chemoradiation for a head and neck cancer.
- 2. Dose Dense chemotherapy for breast cancer.
- 3. Neoadjuvant chemoradiotherapy for esophageal cancer.
- 4. Carcinoma Bladder  $T_3N_0M_0$ .
- 5. Post-operative radiation for cervical cancer.
- 6. Involved Nodal RT for Non Hodgkins Lymphoma.
- 7. Radiation for Wilms Tumour.
- 8. VMAT (Volumetric Modulated Arc Radiotherapy).
- 9. Bisphosphonates in bone metastasis.
- 10. IMRT (Intensity Modulated Radiotherapy).

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P.Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Discuss management of cancer Nasopharynx  $T_2N_0M_0$  in a 18 yrs old boy.

2. Discuss chemo radiation in the management of cervical cancer.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. Hormonal management of prostate cancer.
- 2. Chemo prevention.
- 3. Chordoma.
- 4. Hormonal management in cancer breast.
- 5. Involved field radiation therapy.
- 6. Ewings sarcoma.
- 7. Management of spinal cord compression.
- 8. Altered fractionation.
- 9. Preoperative radiotherapy in cancer rectum.
- 10. Herceptin.

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P.Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Basis of Tyrosine Kinase Inhibitors in treatment of cancer.

2. Management of Laryngeal Cancer  $T_3N_0M_0$  in a 40 year old man. Discuss the role of organ conservation protocol.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. Mucositis and its management during chemoradiation for a head and neck cancer.
- 2. Herceptin for breast cancer.
- 3. Pelvic Radiation for High Risk Adenocarcinoma of the Prostate in a 60 year old man.
- 4. Compare and contrast IMRT and Brachytherapy in Carcinoma Cervix.
- 5. Post-operative radiation for endometrial cancer.
- 6. Involved Field RT for Non Hodgkins Lymphoma.
- 7. Radiation for Rhabdomyosarcoma.
- 8. Radiation for Benign conditions.
- 9. Denosumab in bone metastasis.
- 10. Interstitial Implants.

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P.Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Discuss the management of Carcinoma Anterior 2/3<sup>rd</sup> Tongue.

2. Discuss management of Early stage prostate cancer.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. Total skin electron therapy.
- 2. Use of PET CT scan in planning radiotherapy.
- 3. Neo adjuvant chemotherapy.
- 4. Role of Radiotherapy in Anal carcinoma.
- 5. SVC obstruction.
- 6. Solitary brain metastasis.
- 7. Role of radiation in retinoblastoma.
- 8. Mantle Field radiation.
- 9. Hormones in breast cancer.
- 10. Simulation in Radiotherapy.

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Discuss staging and treatment of multiple myeloma.

2. Discuss the rationale for concurrent chemo radiation, discuss chemo radiation in carcinoma rectum.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. HER 2 neu.
- 2. Palliative radiation for brain metastasis.
- 3. Adaptive radiotherapy.
- 4. Hormonal management in breast cancer.
- 5. Sentinel lymph node biopsy and its clinical importance.
- 6. Bisphosphonates.
- 7. Chemotherapy in carcinoma esophagus.
- 8. Brachytherapy for carcinoma vagina.
- 9. Partial breast irradiation.
- 10. Hypercalcaemia.

# CLINICAL PRACTICE AND TECHNIQUES OF RADIO THERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Discuss in detail lymphatic drainage of breast and latest clinical staging of breast cancer.

2. Explain the role of chemo radiation in organ preservation. Describe the various indications and explain how it is useful in each indication.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. Radiotherapy for carcinoma thyroid.
- 2. Role of radiotherapy in Wilm's tumour along with technique and prescription.
- 3. Radical radiotherapy for T1 vocal cord.
- 4. Accelerated Partial Breast Radiation (APBI).
- 5. Preoperative chemo radiation in rectal cancer.
- 6. Prophylactic cranial irradiation.
- 7. Tumour lysis syndrome clinical features, lab findings and management.
- 8. What are targeted therapies? Give one example of its role along with radiation and explain its rationale.
- 9. Role of brachytherapy in soft tissue sarcoma.
- 10. What is ALARA? Discuss radiation protection based in ALARA principle.

# CLINICAL PRACTICE AND TECHNIQUES OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Discuss staging and treatment of medulloblastoma.

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:  $(10 \times 7 = 70)$ 

- 1. Luminal B subtype.
- 2. Short course radiotherapy in carcinoma rectum.
- 3. Radiotherapy for carcinoma anal canal.
- 4. Soft tissue sarcoma RT role.
- 5. Paris Dosimetry.
- 6. Organ preservation in muscle invasive bladder cancer.
- 7. Chemotherapy in multiple myeloma.
- 8. Esthesioneuroblastoma.
- 9. SVC Obstruction.
- 10. Temozolomide.

# AUGUST 2020 (MAY 2020 SESSION)

**Sub. Code: 3027** 

# DIPLOMA IN MEDICAL RADIOTHERAPY (DMRT) EXAMINATION

# CLINICAL PRACTICE AND TECHNIQUES OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Classify salaivary gland tumors and discuss the management of carcinoma parotid with emphasis on radiotherapy technique.

2. Discuss the role of molecular targeted therapy in cancer treatment and explain when it can be combined with radiotherapy.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. Tumor lysis syndrome.
- 2. Malignant melanoma
- 3. Ewings sarcoma
- 4. Bisphosphonate.
- 5. Geftinib.
- 6. Discuss early and late emesis in patients on chemotherapy.
- 7. Discuss the management of adenocarcinoma of ovary.
- 8. Short notes on triple negative breast cancer.
- 9. Soft tissue sarcoma of extremity.
- 10. Discuss the management of grade III astrocytoma.

# NOVEMBER 2020 (OCTOBER 2020 SESSION)

**Sub. Code: 3027** 

# DIPLOMA IN MEDICAL RADIOTHERAPY (DMRT) EXAMINATION

# CLINICAL PRACTICE AND TECHNIQUES OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Discuss the various levels of nodal involvement in various sites of head and neck cancer and rationale of role of combined modality approach in head and neck cancer.

2. Discuss adjuvant systemic treatment in 45 year old female with T2N1M0 carcinoma left breast.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. Venous access
- 2. Gemcitabine
- 3. Herceptin
- 4. Chemo prevention
- 5. Carcinoid
- 6. Retinoblastoma.
- 7. Management of inoperable NSCLC.
- 8. Management of stage III carcinoma maxilla
- 9. Prophylactic cranial irradiation.
- 10. Brachytherapy in carcinoma cervix.

# JULY 2021 (MAY 2021 SESSION)

**Sub. Code: 3027** 

# DIPLOMA IN MEDICAL RADIOTHERAPY (DMRT) EXAMINATION

# CLINICAL PRACTICE AND TECHNIQUES OF RADIOTHERAPY AND CANCER CHEMOTHERAPY

Q.P. Code: 343027

Time: Three Hours Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Describe in detail the management of Stage IV carcinoma hypopharynx.

2. Describe the workup and management of a case of early stage carcinoma uterine cervix.

II. Write notes on:  $(10 \times 7 = 70)$ 

- 1. Proton therapy
- 2. Abscopal effects of radiation.
- 3. Indications for emergency radiotherapy.
- 4. Craniospinal Radiotherapy.
- 5. Early effects of Radiation.
- 6. Total Body Irradiation.
- 7. Iodine Therapy.
- 8. Splenic Radiation and its indications.
- 9. Neoadjuvant chemotherapy in carcinoma nasopharynx.
- 10. Radioprotectors.