Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. Radiotherapy Technology Examination – SEPTEMBER 2015

Time: Three Hours **Max. Marks: 60 Marks**

PRINCIPLES & PRACTICE OF RADIOTHERAPY

(RS -2)

Q.P. CODE: 2916

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

Section 'A'

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Discuss the radiotherapy management of ca. breast
2. Describe the role of radiotherapy in the management of ca. cervix

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. Mould therapy
4. Intra operative radiotherapy
5. Superior vena cava syndrome

SHORT ANSWERS (Answer any Five) **2 x 5 = 10 Marks**

6. ICRU 38
7. PSA
8. Mantle technique
9. Temzolomide
10. Wilms tumor
11. Glioblastoma multiforme

Section 'B'

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Discuss the basis of radiation accident preparedness describe the role of radiation monitors in management of acute radiation exposure
2. How do you plan for a comprehensive cancer centre to handle 3000 new patients every year? Give an account of procedures to be adopted to initiate the project

SHORT ESSAYS (Answer any Two) **2 x 5 = 10 Marks**

3. AIDS & cancer
4. Intensity modulated proton therapy
5. Hyperthermia

SHORT ANSWERS (Answer any Five) **2 x 5 = 10 Marks**

6. Level I evidence
7. Grade A recommendation
8. Heimleich maneouvre
9. Karnofsky performance score of 50
10. Tamoxifen
11. SPECT

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III Year B.Sc. Radiography Degree Examination – APRIL 2015

Time: Three Hours **Max. Marks: 80 Marks**

RADIOTHERAPY, ONCOLOGY & TECHNIQUES (Revised Scheme)

Q.P. CODE: 2208

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Describe the Radiotherapy Fractionation schedules and rationale. What are the schedules used in Teletherapy and Brachytherapy of Cancer Cervix?
2. Describe in detail the process involved in Radiotherapy planning of a patient with Brain Tumor. Elaborate on the Mould room techniques used and simulation techniques used.
3. Describe in detail the process involved in Radiotherapy planning of a patient with Breast Cancer. Elaborate on the Mould room techniques used and simulation techniques used.

SHORT ESSAYS (Answer any Eight) **8 x 5 = 40 Marks**

4. Intra operative radiotherapy
5. Palliative radiotherapy
6. Emergency in radiotherapy
7. Hemibody radiotherapy
8. Contouring methods
9. Virtual simulation
10. Gamma knife
11. Radium
12. Brachy therapy of Cancer cervix
13. Radiation safety of patients and personnel during radiotherapy in Telecobalt machine

SHORT ANSWERS **10 x 2 = 20 Marks**

14. Rapid arch
15. Hemoglobin
16. Chemotherapy
17. IGRT methods
18. Bite blocks
19. PET CT Scan
20. ALARA
21. Radioactive isotopes used in radiotherapy
22. Linear accelerators
23. Oxygen effect

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Radiography Degree Examination – APRIL 2015

Time: Three Hours **Max. Marks: 80 Marks**

IMAGING TECHNIQUE INCLUDING US / CT/ MRI / NUCLEAR

Q.P. CODE: 2209

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Describe the principles of gamma camera
2. Define MRI. Mention the sequence of MRI
3. What is constants media. How do you classify mention the adverse reactions of constant media

SHORT ESSAYS (Answer any Eight) **8 x 5 = 40 Marks**

4. MRI artifacts
5. SPECT
6. Multihole collimator
7. HRCT of lungs
8. SHIM coils
9. Fourth generation CT Scanner
10. Half life of radio-active element
11. Ultra sound probes
12. Signal to noise ratio

SHORT ANSWERS **10 x 2 = 20 Marks**

13. Aliasing
14. Larmor frequency
15. Radioactive
16. Modes of ultra sonography
17. Indications of Doppler study
18. Pixel and voxel
19. Tesla
20. C T Motion artifacts
21. Gamma rays
22. Magnetic field lazards

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III Year B.Sc. Radiography Degree Examination – APRIL 2015

Time: Three Hours **Max. Marks: 80 Marks**

RADIOGRAPHIC TECHNIQUES – II

Q.P. CODE: 2210

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Describe about Hysterosalphingography.
2. Describe about myelography.
3. Describe following radiological procedures:
   Air encephalography
   Ventriculography
   Brachography

SHORT ESSAYS (Answer any Eight) **8 x 5 = 40 Marks**

4. Laryngography
5. ERCP
6. Enterocylsis
7. MCV
8. IVP
9. Barium meal double contrast
10. Radiation protection
11. Fluoroscopy
12. MRS
13. List-out four vascular intervention procedures.

SHORT ANSWERS **10 x 2 = 20 Marks**

14. Pressure injector
15. Asepsis
16. Motean artifact
17. Rexel and Voxel
18. Tomography
19. After care for barium studies
20. Volume rendering tools
21. List-out any four indications for IVP.
22. Radioactivity
23. Ten day rule

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