Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Radiography Degree Examination – Mar 2013

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

RADIATION PHYSICS & MEDICAL PHYSICS

Q.P. CODE: 2204

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 in detail various quality control checks for a diagnostic X – rays
2. Describe in detail rotating anode X – ray tubes, design, rating and use of rating charts
3. Write in detail biological effects of radiation

SHORT ESSAYS (Answer any Ten) **10 x 5 = 50 Marks**

4. Self rectified and half wave rectifier
5. Grid
6. Fluoroscopy
7. Mobile X- ray equipment
8. Mammography
9. Principle and construction of image intensifiers
10. m A meter
11. Filteration
12. GM counter
13. Maximum permissible limit
14. Structural shielding design
15. Roentgen and rad

SHORT ANSWERS **5 x 2 = 10 Marks**

16. Cones
17. Circuit breakers
18. Insulators
19. Protective materials
20. Mutations

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Radiography Degree Examination – Mar 2013

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

RADIOGRAPHY - I

Q.P. CODE: 2205

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 Orthopantomography, its uses, advantages against routine intra or extra oral dental x. rays
2. Describe an x.ray film in relation to construction, base, structure, types speed spectral sensitivity
3. What are the components of x. ray machine and describe each of them with a neat diagram

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

4. Explain radiographic technique of elongated styloid and zygomatic arch
5. Factors influencing the radiographic image
6. Various fogging of films, their causes and prevention
7. Explain radiographic technique of both SI joints and hip joints
8. Type and describe the x. rays interaction with matter
9. Describe the x. ray film processing (manual)
10. Write about preparation of barium for procedures and content of the barium powder mixture
11. Radiography of fracture neck of femur
12. Dark room safe light, its performance and safe light test
13. Explain various projections for rib fracture and sternal fracture

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

14. Hangers
15. Radiography of ankle joint
16. Radiography of elbow joint
17. Radiography of clavicle
18. Fixer
19. PA view of mandible
20. Extra oral dental x. ray
21. Developer
22. Grids
23. Speed of x. ray film

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Radiography Degree Examination – Mar 2013

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

RADIOGRAPHIC PHOTOGRAPHY – DARK ROOM TECHNIQUE - I

Q.P. CODE: 2206

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. Define density. Sharpness and resolution. Describe the various factors affecting resolution
2. Explain in detail the chemistry of image formation
3. Explain in detail the maintenance of dark room to obtain a good quality processed film

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

4. Intensifying screens
5. Characteristic curve
6. List the difference between manual and automatic processing
7. Pass box and lead box
8. Explain the various methods to control scattered radiation
9. X – ray cassette
10. Storage of Radiograph
11. Fixer
12. Copying of Radiographs
13. Dark room entrance

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

14. Rinsing
15. Film fog
16. View box
17. Effect of pH in film development
18. Single coated film
19. Spectral sensitivity
20. Loading bench
21. Moving grid
22. Collimators
23. Base of a film

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Radiography Degree Examination – Aug 2013

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

RADIATION PHYSICS & MEDICAL PHYSICS

Q.P. CODE: 2204

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 in detail various quality control checks for a diagnostic X – rays
2. Describe in detail rotating anode X – ray tubes, design, rating and use of rating charts
3. Explain radiation protection of staff members, patients and public

SHORT ESSAYS (Answer any Ten) **10 x 5 = 50 Marks**

4. Radiation effects of whole body (early effects and late effects)
5. Grid
6. Fluoroscopy
7. Mobile X-ray equipment
8. Mammography
9. Principle and construction of image intensifiers
10. Control of filament cement
11. Filteration
12. GM counter
13. TLD
14. Structural shielding design
15. Roentgen and Rad

SHORT ANSWERS **5 x 2 = 10 Marks**

16. Cones
17. Fuses
18. Insulators
19. ALARA
20. Mutations

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