Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Radiography Degree Examination – Sep 2012

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 diagnosis X–rays
2. Explain 3 phase X – rays generator used in the diagnostic department. Describe how constant potential can be obtained
3. Write in detail biological effects of radiation

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

4. Rapid film changes
5. Grid
6. Fluoroscopy
7. Mobile X – ray equipment
8. Mammography
9. Principle and construction of image intensifiers
10. Earthing
11. Filteration
12. GM counter
13. Annual dose equivalent limits in radiation protection
14. Structural shielding design
15. Roentgen and Rad

SHORT ANSWERS 5 x 2 = 10 Marks

16. Cones
17. Interlocking circuits
18. Isulators
19. What is lead equivalence
20. Mutations

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II Year B.Sc. Radiography Degree Examination – Sep 2012

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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. Radiography in acute abdomen
2. Write briefly on radiation hazards and protection
3. Computerized radiography

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

4. Decubitus view in pleural effusion
5. Radiography in cervical spine fracture
6. Lordotic view
7. Bucky tray
8. Lead goggles
9. Radiography in acromio-clavicular joint
10. Radiography of sternum
11. Stochastic effects of radiation
12. Anatomy of knee joint
13. Grid ratio and implications

SHORT ANSWERS — 10 x 2 = 20 Marks

14. Weight bearing x-ray of knee joint
15. Teleroetgenography
16. Olecranon process
17. Water's view
18. Tunnel's view
19. Cones and cylinders
20. Anode heel effect
21. Radiography of pelvis for hip joints
22. Optic foramen view
23. Half value layer

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II Year B.Sc. Radiography Degree Examination – Sep 2012

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. Describe in detail the layout of a dark room in a large hospital
2. What is an intensification factor? Discuss construction of intensifying screen / role of each layer and type of screens
3. What is an automatic processor? Describe its principles features water supply, thermostat, maintenance advantages and limitations

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

4. Latent image, conversion of latent image into visible image
5. How to avoid scattering / scatter radiation?
6. Draw and label a cross section of a typical X-ray cassette with film
7. What are three primary protections against radiation?
8. Describe a card holder, film holder. Explain briefly its construction
9. Short focus and broad focus
10. Electron trap
11. Various fogging of films – their cause and prevention
12. Reproduction radiography
13. Structure of x-ray films

SHORT ANSWERS 10 x 2 = 20 Marks

14. Characteristic curves
15. Methods of silver recovery
16. Anti Halation layer
17. Single screen radiography
18. Advantage of intensifying screen
19. Methods of duplication of radiographs
20. Vacuum cassette
21. Magnification and Minification
22. Intensification factor
23. Fluorescence

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