2209_2011_1_S158

Rajiv Gandhi University of Health Sciences, Karnataka

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

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. Write briefly about basic principles of M.R.I.
2. Describe in detail ultrasound transducer, piezoeledtric effect and types of arrays.
3. Describe in detail about single photon emission tomography.

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

4. M.R. angiography.
5. Precautions while handling radiopharmaceuticals.
6. Third generation C.T. scanners.
7. Pulsed Doppler.
8. Specular reflection.
9. Shim coils.
10. Advantages of ultrasound imaging.
11. Half life of radio-active element.
12. Xenon gas ionization chambers.

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

13. Indications for Doppler study.
14. C.T. numbers.
15. Magnetic field hazards.
16. Acoustic impedance.
17. Aliasing.
18. Streak artifacts in C.T.
19. Beta rays.
20. Flip angles.
21. Advantages of PET.
22. Radioactive phosphorus.

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2210_2011_1_S41

Rajiv Gandhi University of Health Sciences, Karnataka

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

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. Discuss the modalities of imaging of kidneys
2. Discuss the technique and radiography of endoscopic retrograde cholangio pancreatography (ERCP)
3. Discuss the technique and radiography of Percutaneus Transhepatic Cholangiography (PTC)

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

4. Lumbar myelography
5. Renal angiogram
6. MCU
7. Small bowel enema
8. IVP (Intra venous pylogram)
9. Oval cholecysto graphy
10. Dacrocyto graphy
11. HSG
12. Coronary arteri graphy
13. Trans femoral arteriography

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

14. Tenday rule
15. Positive contrast media
16. Emergency drugs
17. Asepsis
18. MR contrast media
19. X-ray artifacts
20. Indications & contra indications for HSG
21. Barium swallow
22. Fistulogram
23. Scout view

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Rajiv Gandhi University of Health Sciences, Karnataka

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

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

PHYSICS OF RADIOTHERAPY AND EQUIPMENT

Q.P. CODE: 2207

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. Write principle, advantage and disadvantage of mega voltage X – ray machine and write a note on the various specialized treatments that can be done using this equipment
2. What are the various interaction of radiation with matter? Explain in detail about Compton scattering
3. Explain in detail about brachytherapy. What are the various system available and write about HDR brachytherapy and LDR brachytherapy

SHORT ESSAYS **8 x 5 = 40 Marks**

4. Productive material and room design for radiation protection of therapy installation
5. TLD
6. Air, surface, depth doses and factors affecting them
7. Geiger – muller counter
8. Portal imaging
9. Production of artificial radioisotopes
10. Special aspects of radiotherapy using megavoltage radiation including electron beam therapy
11. PDR

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

12. The roentgen and rad
13. Isodose curves
14. Compensating filters
15. Superificial beta ray therapy
16. Survey meters
17. Gamma ray constant
18. Radioactive equilibrium
19. Half value thickness
20. CT simulator
21. SSD and SAD

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