Rajiv Gandhi University of Health Sciences, Karnataka

I Year M.Sc Medical Imaging Technology - 16-May-2023

Time: 3 Hours **Max. Marks: 80**

RADIOGRAPHIC PROCEDURE AND PRINCIPLES OF RADIOGRAPHIC EXPOSURE
Q.P. CODE: 9541

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

Answer All The Questions **08 X 10 = 80 Marks**

1. Discuss in detail GIT contrast media.
2. Explain the view to demonstrate the bicipital groove.
3. Discuss briefly automatic processor quality assurances.
4. Geometric unsharpness.
5. Quantum mottle.
6. Explain in detail foreign bodies radiography.
7. Write a note on special barium enema studies.
8. The effect of exposure factors on image quality.

I Year M.Sc Medical Imaging Technology - 18-May-2023

[Time: 3 Hours] **[Max. Marks: 80]**

INSTRUMENTATION OF CONVENTIONAL X-RAY EQUIPMENTS AND INSTRUMENTATION OF SPECIALIZED RADIOLOGY EQUIPMENTS
Q.P. CODE: 9542

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

Answer All The Questions **08 X 10 = 80 Marks**

1. Discuss in detail about devices improving radiographic quality.
2. Give an account of 3 phase x-ray generators.
3. Discuss in detail about x-ray circuit components.
4. Stationary and rotating anodes.
5. Types of transformer loss.
6. Safety rules for radiographers.
7. Write a note on digital fluoroscopy.
8. Pantomography.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year M.Sc Medical Imaging Technology - 20-May-2023

Time: 3 Hours **Max. Marks: 80**

ADVANCED TECHNIQUE AND INSTRUMENTATION OF ULTRASONOGRAPHY
Q.P. CODE: 9543

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

Answer All The Questions **8 X 10 = 80 Marks**

1. Properties of ultrasound and a brief note on ultrasound contrast agents.
2. Transducers with specific reference to advances in design of transducers.
3. 3D and 4D imaging.
4. Image display in ultrasound.
5. Harmonic imaging and extended field of view imaging.
6. Probe maintenance, disinfection and handling, a note on ultrasound safety.
7. Protocol for abdominal ultrasound and principle of elastography.
8. Protocol for carotid doppler with a note on ophthalmic Ultrasonography.

I Year M.Sc. Medical Imaging Technology Degree Examination - 23-May-2023

Time: 3 Hours **Max. Marks: 80**

ADVANCED TECHNIQUE AND INSTRUMENTATION OF COMPUTED TOMOGRAPHY
Q.P. CODE: 9544

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

Answer All The Questions **08 X 10 = 80 Marks**

1. Discuss briefly CT image reconstruction algorithms.
2. Write a detail note on quality control tests for Computed Tomography scanners.
3. Write detail note on 3D Computed Tomography scanner in detail.
4. Dose reduction techniques in CT.
5. CT artifacts.
6. HRCT protocol for techniques.
7. CT post processing techniques.
8. Pressure injector and its usefulness in CT.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year M.Sc. Medical Imaging Technology - 22-Nov-2023

[Time: 3 Hours] **[Max. Marks: 80]**

Radiographic Procedure and Principles of Radiographic Exposure
Q.P. CODE: 9541

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

Answer All The Questions **08 X 10 = 80 Marks**

1. Discuss the indication, contraindication and technique of enteroclysis.
2. Discuss in detail of mammography with its technique and ICRP guidelines.
3. Discuss the different views taken for the Knee joint including special views.
4. Dark room Layout.
5. Basic skull X-Ray views.
6. Explain the routine and supplementary view of Hand.
7. Management of Radiographic image quality.
8. Explain the Technique involved in Barium meal follow through.

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I Year M.Sc Medical Imaging Technology - 14-Dec-2022

Time: 3 Hours **Max. Marks: 80**

INSTRUMENTATION OF CONVENTIONAL X-RAY EQUIPMENTS AND INSTRUMENTATION OF SPECIALIZED RADIOLOGY EQUIPMENTS
Q.P. CODE: 9542

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

Answer All The Questions **08 X 10 = 80 Marks**

1. Define rectification. Explain different types of rectifiers in detail with diagram.
2. Write about CR and DR
3. Mobile X-Ray equipment.
4. Remote control X-ray table.
5. Grid controlled X-ray tube.
6. Write note on digital fluoroscopy.
7. Ionization timers.
8. Cones and cylinders.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year M. Sc Medical Imaging Technology Degree Examination - 27-Nov-2023

Time: 3 Hours **Max. Marks: 80**

ADVANCED TECHNIQUE AND INSTRUMENTATION OF ULTRASONOGRAPHY
Q.P. CODE: 9543

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

Answer All The Questions **8 X 10 = 80 Marks**

1. Mention the properties of ultrasound and interaction of ultrasound with matter
2. Doppler instrumentation
3. Image display and doppler artifacts
4. Quality assurance and documentation in conventional ultra-sonography
5. Venous and arterial doppler and protocols
6. Advancements in ultrasound contrast media and its applications
7. 3D and 4D ultrasound imaging
8. Ultrasound knobology

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I Year M.Sc. Medical Imaging Technology Degree Examination - 29-Nov-2023

Time: 3 Hours **Max. Marks: 80**

ADVANCED TECHNIQUE AND INSTRUMENTATION OF COMPUTED TOMOGRAPHY
Q.P. CODE: 9544

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

Answer All The Questions **08 X 10 = 80 Marks**

1. Write a detail note on quality control for computed tomography scanners.
2. **Isotropic imaging**
3. Clinical applications of multislice CT scanner.
4. CT Perfusion.
5. CT Detector technology.
6. Discuss about CT coronary angiography.
7. Dose reduction techniques in CT.
8. Discuss briefly CT image reconstruction algorithms.

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