Question Paper

Exam Date & Time: 25-Jan-2023 (10:00 AM - 01:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. (MEDICAL IMAGING TECHNOLOGY) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: MIT5101 - RADIOGRAPHIC EQUIPMENT AND TECHNIQUES
(2021 SCHEME)

Marks: 100 **Duration: 180 mins.**

Answer all the questions.

1)	What are exposure timers? Discuss in detail types and functions of exposure timers.	(20)
2)	Discuss the various quality control tests performed for radiographic equipments and add a note on the various acceptable limits and corrective actions for these functional tests.	(20)

3) **Explain the following:**

3A)	Illustrate the high voltage circuit and explain the various components of a high voltage circuit.	(10)
3B)	List out the types of grids and discuss in detail the causes of grid cut off. Add a note on air gap technique	(10)
3C)	Explain mobile x-ray equipment.	(10)
3D)	Explain the various features of a fluoroscopic tables.	(10)

4) **Short notes:**

4A)	Types of tomography movements	(5)
4B)	How to analyze radiographic rating charts? (	(5)
4C)	Mammography targets	(5)
4D)	Safety rule for radiographers	(5)

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Question Paper

Exam Date & Time: 27-Jan-2023 (10:00 AM - 01:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. (MEDICAL IMAGING TECHNOLOGY) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: MIT5102- RADIOGRAPHIC PROCEDURES
(2021 SCHEME)

Marks: 100 **Duration: 180 mins.**

Answer all the questions.

1)	Describe in detail about basic and special views for Facial bones and sinuses.	(20)
2)	Describe in detail about the indications, contraindications and technique for Fallopian Tube Recanalization.	(20)
3A)	Write a note about the indications, contraindications and technique for Barium Meal.	(10)
3B)	Write a note on the basic and special views taken for Pelvis.	(10)
3C)	Write a note on the indications, contraindications and technique for Retrograde Pyeloureterography.	(10)
3D)	Write a note on the basic and special views taken for Hand	(10)
4A)	Write a short note on the modifications of urogram	(5)
4B)	Write a short note on the radiographic projection taken for bicipital groove	(5)
4C)	Write a short note on five specific conditions/ modifications of barium swallow.	(5)
4D)	Write a short note on technique for Anterior oblique and lateral X-ray for Sternum .	(5)

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Question Paper

Exam Date & Time: 30-Jan-2023 (10:00 AM - 01:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. (MEDICAL IMAGING TECHNOLOGY) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: MIT5103- ADVANCED INSTRUMENTATION AND TECHNIQUES IN CT-I
(2021 SCHEME)

Marks: 100 **Duration: 180 mins.**

Answer all the questions.

1)	Explain the CT dose measurement procedure in detail.	(20)
2)	Discuss the indications, contraindication, procedure and techniques of upper Extremities examination.	(20)

Explain the following:

3)	Discuss the indications, contraindication, procedure and techniques of CT pelvis.	(10)
4)	Explain the relationship between CT numbers and the CT image's greyscale.	(10)
5)	What is meant by the CTDI and DLP.	(10)
6)	Discuss the indications, contraindication, procedure and techniques of CT head.	(10)

7) **Explain the following:**

7A)	Outline the main features of x-ray tubes in CT	(5)
7B)	Multiple scan average dose.	(5)
7C)	Scintillation detectors	(5)
7D)	State the shortcomings of radiography and tomography and explain how these limitations are overcome by CT.	(5)

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