

# Question Paper

Exam Date & Time: 23-Apr-2022 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. MEDICAL IMAGING TECHNOLOGY DEGREE EXAMINATION - APRIL 2022  
SUBJECT: MIT5101 - RADIOGRAPHIC EQUIPMENT AND TECHNIQUES  
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Illustrate the X-ray circuit. Discuss in detail the various components added in the circuit to safeguard the electrical equipment and X-ray tube target. (20)
- 2) What are exposure timers? Discuss in detail the types of exposure timers. Add a note on the functional test to analyze the performance of exposure timers. (20)

3. Explain the following:

- 3A) Outline the various safety rules for radiographers. Add a note on earthing. (10)
- 3B) Discuss features of a tomographic unit. (10)
- 3C) Discuss components of mobile image intensifier. (10)
- 3D) Outline power storage generators. (10)

4. Short notes:

- 4A) Bremsstrahlung radiation. (5)
- 4B) Types of rectifiers. (5)
- 4C) Photoelectric effect and its significance. (5)
- 4D) Falling load generators. (5)

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