

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 1122]

NOVEMBER 2022

Sub. Code: 1843

**B.Sc. RADIOGRAPHY & IMAGING TECHNOLOGY
FIRST YEAR (Regulation 2018-2019)
PAPER III – RADIOGRAPHY EQUIPMENTS, MAINTENANCE AND
QUALITY CONTROL RELATED TO X-RAY ONLY
Q.P. Code: 801843**

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on : (3X10=30)

1. What is fluoroscopy? Discuss in detail about its various types and their advantages.
2. Discuss in detail about the construction and working of a modern X-ray unit with suitable diagram.
3. Write in detail about the developments in CT technology.

II. Write Notes on : (8X5=40)

1. Working of full wave rectifier with suitable circuit.
2. Discuss in detail about tube rating.
3. Discuss about the types of transformer.
4. Mammography.
5. Discuss about the advantages and disadvantages of DR systems.
6. Mobile X-ray unit.
7. What is quality assurance? Write down the maintenance procedure for X-ray unit.
8. Principle of Angiography.

III. Short Answers on: (10X3=30)

1. Filament current.
2. What is a grid? How it is used?
3. Filtration.
4. Heat dissipation methods in X-ray tube.
5. How will you improve the quality of mammographic image?
6. Write about the limitations of dental X-ray unit.
7. Continuous spectra.
8. List out the factors that affect the X-ray quality.
9. Write any two points about the maintenance of cath lab equipments.
10. Heel effect.
