

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

[AHS 0921]

**SEPTEMBER 2021
(MAY 2021 EXAM SESSION)**

Sub. Code: 1815

**M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY
SECOND YEAR (From 2017-2018 onwards)
PAPER V – NEWER DEVELOPMENTS IN ADVANCED IMAGING
TECHNOLOGY AND BIOSTATISTICS
*Q.P. Code : 281815***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on: (2 x 20 = 40)

1. Mention the recent advancements and innovation in dual source CT Technology and elaborate on them.
2. Principles, present status and future of PET MR Imaging.

II. Write Short Notes on: (10x6 = 60)

1. Digital PET.
2. Picture Archiving of Communication System (PACS).
3. Dual energy X-Ray units.
4. Elastography – principles.
5. Recent advances in fetal MRI imaging.
6. Digital fluoroscopy.
7. Briefly explain the necessity of defining a research problem and various techniques involved in defining a problem.
8. Literature survey.
9. Explain in detail the different methods of collecting data.
10. The important concepts related to research design.
