

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

**[AHS 0922]**

**SEPTEMBER 2022**

**Sub. Code: 1837**

**(FEBRUARY 2022 & AUGUST 2022 EXAM SESSIONS)**

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**

**THIRD YEAR (Regulation from 2014-2015)**

**PAPER II – MODERN IMAGING TECHNIQUES AND RECENT TRENDS IN  
IMAGING**

***Q.P. Code: 801837***

**Time: Three Hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Explain about basic design and operating principles of Gamma camera.
2. Diabetic patient preparation and after care in angiography procedure.
3. Explain about radiation dose and recent advances in mammography techniques, their advantages and limitations.

**II. Write notes on:**

**(8 x 5 = 40)**

1. DMSA scan.
2. Gas filled detector.
3. TRUS.
4. Doppler Ultrasound.
5. Perfusion imaging in MRI.
6. SPECT preparation of patient, radioisotope and image reconstruction.
7. PET-CT -Principles and Indications.
8. Radio-isotope Generator.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Sonomammogram.
2. Teleradiology.
3. Standardized uptake value.
4. Limitations of MRI.
5. Expand DICOM and PACS.
6. Uses of DWI.
7. Reconstruction using MPR.
8. Road mapping.
9. Secular equilibrium.
10. TACE and its Indications.

\*\*\*\*\*