

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

[AHS 0122]

JANUARY 2022

Sub. Code: 1852

(FEBRUARY 2021 & AUGUST 2021 EXAM SESSION)

B.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY

THIRD YEAR

PAPER II – MODERN IMAGING TECHNIQUES AND RECENT TRENDS IN IMAGING

Q.P. Code: 801852

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. i) Discuss in detail about DSA.
ii) Write about the various contrast agents used in angiographic imaging.
2. Discuss in detail about the construction, principle and working of a gamma camera.
3. Write in detail about the principle of image formation in MR and about various image Sequences followed in it.

II. Write notes on:

(8 x 5 = 40)

1. Advantages of MDCT.
2. Methods of disposal of liquid wastes generated in a nuclear medicine department.
3. TRUS.
4. Stereotactic biopsy using mammography
5. Discuss about the safety precautions to be followed during PET-CT procedure.
6. PACS.
7. Doppler ultrasound
8. How is radiation dose measured? Write down any three methods to reduce radiation exposure in radiology practices.

III. Short answers on:

(10 x 3 = 30)

1. HIDA scan
2. Filters
3. Molybdenum generator
4. Mammo tomogram
5. Deep vein thrombosis
6. Expand IGRT and PACS
7. List any three clinical applications of ultrasound.
8. Role of radiographer in angiographic techniques.
9. Heel effect.
10. Piezo electric effect.
