

B.Sc. RADIOLOGY IMAGING TECHNOLOGY

THIRD YEAR

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

Q.P. Code: 801822

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Write in detail the Fusion Imaging Techniques.
2. Explain the preparation, procedure and post procedure care for CT guided biopsy.
3. Explain in detail the principle and working of a gamma camera.

II. Write notes on: **(8 x 5 = 40)**

1. List the C-Arm Application and Safety Aspects.
2. Explain about Radiopharmaceuticals used for Liver and Cardiac studies.
3. Write about MR Stroke protocol.
4. Explain about Radioisotope Generator.
5. Write about Tc99 bone scan.
6. Write about image guidance to therapeutic procedures.
7. Explain about Diffusion Tensor Imaging.
8. Write about the modern dose Reduction methods in CT Scan imaging.

III. Short answers on: **(10 x 3 = 30)**

1. What is SPECT? Explain.
2. Procedure of patient preparation for PET CT.
3. What are the Contraindications to MRI Study?
4. What are the advantages of Digital Radiography?
5. Write about Mass Attenuation Coefficient.
6. What is Fusion Imaging?
7. Write about Parallel multi-hole collimator.
8. Explain about dynamic CT studies.
9. List limitations of sonomammography procedure.
10. What are the limitations of MRI?