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BAHI-056

B.Sc. IN MEDICAL IMAGING TECHNOLOGY (BMIT)

Term-End Examination

December, 2014

BAHI-056 : ADVANCE PHYSICS OF RADIOLOGICAL EQUIPMENT - II

Time : 3 hours *Maximum Marks : 70*

PART - A

Answer **any five** questions. Each question carries 8 marks. **8x5=40**

1. Explain the construction and working of ultrasound transducer.

2. Describe the various generations of CT.

3. Describe the various modes of ultrasound imaging used in radiology.

4. Explain the principle of MRI, along with various components of MRI equipment.

5. Write an essay on 'Radiation Protection in CT'.

6. Give detailed account of various artefacts in CT with their remedies.

7. Explain how ultrasound interacts with matter and process of image formation in diagnostic ultrasound.

8. Describe the two types of relaxations. Explain the spin echo, gradient echo and inversion recovery sequences in MRI.

PART - B

Write short notes on **any five**. Each question carries **6** marks. **6x5=30**

(a) Artefacts found in MRI
(b) Multislice CT
(c) Patient safety in MRI
(d) Power doppler
(e) Slip ring technology and its use in CT
(f) Contrast ultrasound
(g) Working of standard CT equipment
(h) RF Coils and their use in MRI