

**B.Sc. IN MEDICAL IMAGING TECHNOLOGY
(BMIT)**

Term-End Examination

June, 2015

**BAHI-056 : ADVANCE PHYSICS OF
RADIOLOGICAL EQUIPMENT - II**

Time : 3 hours

Maximum Marks : 70

PART - A

1. Answer any five questions. Each question carries 8 marks : 8x5=40
- (a) Describe the recent advances in CT Tube Technology.
 - (b) Explain the doppler effect and its application in diagnostic ultrasound.
 - (c) Enumerate and describe in brief the recent advances in ultrasound technology.
 - (d) Give a detailed account of image formation in MRI.
 - (e) Explain the basic principles of image reconstruction in CT.
 - (f) Describe the construction and functioning of multi detector CT.
 - (g) Discuss in detail about safety issues in MRI.
 - (h) Give an account of various types of magnets used in MRI along with their pros and cons.

PART - B

2. Write short notes on **any five** questions, each question carries **6** marks : **6x5=30**
- (a) R.F coils used in MRI.
 - (b) Contrast ultrasound
 - (c) Spiral CT
 - (d) Piezo electric effect
 - (e) Diffusion weighted MRI
 - (f) Types of CT detectors
 - (g) CT artefacts
 - (h) Gradient echo
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