

00862 B.Sc. IN MEDICAL IMAGING TECHNOLOGY  
(BMIT)

Term-End Examination

December, 2013

BAHI-056 : ADVANCE PHYSICS OF  
RADIOLOGICAL EQUIPMENT - II

Time : 3 hours

Maximum Marks : 70

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PART - A

Note : Answer *any five* questions.

8x5=40

Each question carries 8 marks.

1. Write uses of Spiral C.T. with a neat diagram on its working.
2. Write in details about interaction of ultrasound with matters.
3. Enumerate in details about ultrasound bio-effects and safety.
4. What is MRI. Write a note on basic processing in MR.
5. Explain in details about basics MR Image formation.

6. Make a neat diagram of C.T. Tube and detectors with explanation.
7. Explain in details about Image Quality and Artefacts in ultrasound.
8. Enumerate in detail about diffusion weighted imaging and write how MRI signals is produced.

### PART - B

Write short notes *any six* questions. Each question carries *five marks*. 5x6=30

- (a) Short note on 3D and 4 D ultrasound
  - (b) Basic Principles of Image Reconstruction in CT.
  - (c) Acquisition Technique
  - (d) Gradient Echo
  - (e) Transducer and their uses
  - (f) MR Artefacts
  - (g) Magnetism
  - (h) Contrast ultrasound
  - (i) Multislice C.T.
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