

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

**Term-End Examination
December, 2014**

**BAHI-51 : PHYSICS OF RADIOLOGICAL
EQUIPMENT - I**

Time : 3 Hours

Maximum Marks : 70

PART - A

Answer **any five** questions.

8x5=40

1. What is Grid ? Explain its construction and function. Define Grid Ratio. What are the advantages and disadvantages of Grid ?
2. What is a Bridge Rectifier ? Describe X-ray generator circuit using Bridge Rectifier.
3. Describe the principle of Dual Energy X-ray Absorptiometry. What is the range of radiation doses delivered to the patient during DEXA Examinations ?
4. Draw a neat diagram of X - ray tube and explain its construction in detail.
5. What are the differences between mammography tube and radiography tube ? Why are these differences important ?

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6. Write the construction and function of SPECT camera.
7. Write a detailed note on "Timer in Radiographic X-ray circuit".
8. What is tomography and how is it achieved ?

PART - B

9. Write notes on **any five** : **6x5=30**
- (a) Image, noise and resolution
 - (b) Rotating Anode
 - (c) PET - CT
 - (d) Dental X-ray Machine
 - (e) Flat Panel Digital Fluoroscopy
 - (f) PACS
 - (g) Autotransformer
 - (h) Image Intensifier
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