

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

**Term-End Examination**

00096

**June, 2016**

**BAHI-051 : PHYSICS OF RADIOLOGICAL  
EQUIPMENT-I**

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** Attempt any *five* questions from Part A. Each question carries 8 marks. Part B consists of one question which is **compulsory**. It carries 30 marks.

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**PART A**

*Answer any five questions. Each question carries 8 marks.*

1. Describe in brief the construction and functioning of a Mammography X-Ray machine. 4+4=8
2. (a) Describe the construction of focused grid.  
(b) What are the common errors associated with the use of such grids ? 4+4=8
3. Describe DSA, its principle and recent advances in DSA technology. 2+3+3=8

4. Describe the construction and functioning of an Indirect type flat panel detector. 4+4=8
5. What are high frequency generators ?  
Enumerate their benefits. 4+4=8
6. (a) What is PACS ?  
(b) Enumerate its advantages and disadvantages. 4+4=8
7. Describe the various methods used for automatic exposure control in diagnostic radiology. 8
8. Explain the construction and functioning of an Image Intensifier. 4+4=8

## **PART B**

*Write short notes on any five of the following. Each carries 6 marks.*

**5×6=30**

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- (a) PET-CT
  - (b) Transformers
  - (c) DEXA SCAN
  - (d) Image Resolution
  - (e) Metallic X-Ray Tubes
  - (f) Light Beam Diaphragm (LBD)
  - (g) Dry View Camera
  - (h) Rectification
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