

00361

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

Term-End Examination

December, 2017

BAHI-031 : BASICS OF RADIOLOGICAL PHYSICS

Time : 3 hours

Maximum Marks : 70

Note : *Attempt any six questions in all. Question No. 9 is compulsory.*

1. Explain the construction and function of intensifying screen. **8**
2. Explain Hurter and Deriffield curve. Describe its various parameters. **4+4=8**
3. Discuss how are X-ray produced. Differentiate between Bremsstrahlung and characteristic X-rays. **4+4=8**
4. Write in detail about Digital Radiography and its types. **8**
5. Explain construction and function of the conventional radiographic film. **8**

6. Describe ionization chamber and its function in detection of X-rays. 8
7. Define radioactivity. Explain Decay Constant and Half Life with the help of equations. 4+4=8
8. Explain the principles and method for radiation protection and the control of exposure. 8
9. Write short notes on any five of the following. Each carries 6 marks. 5x6=30
- (a) Screen-film Cassette
 - (b) Laser printer
 - (c) Quality Assurance tests of an X-ray unit
 - (d) Scintillation detector
 - (e) e-LORA
 - (f) Cathode in X-ray tube
 - (g) Fixing in Film processing
 - (h) HVL and TVL
-