

00234

**B.Sc. IN MEDICAL IMAGING
TECHNOLOGY**

Term-End Examination

December, 2014

**BAHI-031 : BASICS OF RADIOLOGICAL
PHYSICS**

Time : 3 hours

Maximum Marks : 70

PART - A

1. Fill in the blanks : 1x10=10
- (a) Film emulsion is made of _____ crystals.
 - (b) In radiographic cassette _____ transfers X-ray energy into visible light.
 - (c) X-ray tubes are usually made of _____ glass.
 - (d) Heel effect can be noticed on _____ side of X-ray tube.
 - (e) Di-hydroxy benzene is used in _____.
 - (f) Ammonium thiosulphate is used in _____.
 - (g) C_sI is used in _____.
 - (h) Recommended humidity level of dark room is _____.
 - (i) Film where wet chemistry is not used is called _____.
 - (j) Gadolinium oxy sulphide is used in _____ intensifying screens.

2. Write short notes on following : **2x5=10**
- (a) Sensitivity speck
 - (b) KBr
 - (c) pH of fixer
 - (d) 10PA film
 - (e) Calcium Tungstate

PART - B

Attempt **any four** questions : **4x5=20**

- 3. Describe methods of replenishment in automatic processors.
- 4. Describe construction and care of radiographic cassette.
- 5. Explain basic structure of direct type DR detector.
- 6. Explain the structure of standard intensifying screen.
- 7. Explain in detail the features of various types of lights used in Dark Room.

PART - C

Attempt **any three** questions : **3x10=30**

- 8. Describe in detail various essential conditions and features of a dark room.
- 9. Describe construction and functioning of Dry View Camera.
- 10. Explain in detail the advantages and the disadvantages of a CR system.
- 11. Enumerate with relevant detail the various types of films used in Radiology department.