

00574

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

Term-End Examination

June, 2013

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

Time : 3 hours

Maximum Marks : 70

- Note :**
- (i) *This question paper contains two parts A & B. Part A contain two parts : I part contains 10 Fill in the blanks.*
 - (ii) *II Part contains (6) questions, answer any (4) questions.*
 - (iii) *Part (B) contain (5) questions answer any (3) questions.*
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PART - A

- I. Fill in the blanks. 10x2=20**
- 1. The optical density of X-ray film is measured by _____.
 - 2. The degree of blackenss on a film depends upon the deposit of _____ present.
 - 3. Grids are used to _____ Scattered Radiation.
 - 4. Replenisher is added to _____ the action of Developer.

5. The transmission ratio is the ratio between _____ to _____ .
6. The walls of darkroom should be painted in _____ .
7. Light beam devise will help to _____ radiation.
8. By increasing the size of the focal spot the geometric sharpness _____ .
9. The effect of light which after glows is called as _____ .
10. Computer Radiography is called as _____ .

II. Write short notes on *any four* of the following : **4x5=20**

1. Safe light
2. Radiographic film
3. Amorphous selenium
4. Silver recovery
5. Latent Image
6. X-ray cassette.

PART - B

Answer *any* (3) questions.

3x10=30

- III. (a) Explain the constituents of Fixer Solution.
(b) What are the factors that affect the fixing time ?
- IV. Explain the test conducted for the following :
(a) Film screen contact
(b) Size of the focal spot
- V. (a) Draw and explain a cross section of radiographic cassette
(b) What are the different types of cassette available ?
- VI. (a) Difference between Manual Processor and Automatic Processor.
(b) Describe the manual processing procedure in detail.
- VII. Write short notes on following :
(a) Dichroic fog
(b) Chemical fog
(c) Air bells
(d) Reticulation mark
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