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**BAHI-032**

00624

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

## Term-End Examination

## December, 2014

## BAHI-032 : RADIOGRAPHIC IMAGING

*Time : 3 hours* *Maximum Marks : 70*

### PART - A

**1.** Fill in the blanks : **10x1=10**

(a) In a traditional film screen system the radiographic image on the film is largely caused by _____.

(b) The conversion efficiency of _____ intensifying screen is more than CaWO4 intensifying screen.

(c) For traditional wet processing of the X-ray film Hurter and Deriffield curve is also called _____.

(d) The dynamic range of Computed Radiography is _____ than that of traditional screen-film radiography.

(e) The photoconductor generally used in Direct Detection Flat Panel system is _____.

(f) In traditional wet processing _____ is used to remove undeveloped silver halide from emulsion.

(g) In X-ray radiography, the relation between X-ray output and X-ray tube current is _____.

(h) The inorganic crystalline scintillator sodium iodide is generally activated with _____.

(i) The full form of SMPTE is _____.

(j) Optical density has _____ unit.

2. Write short notes on **any five** of the following : **5x2=10**

(a) Gamma of a film

(b) Grid

(c) Latent Image (in a conventional film processing)

(d) Silver recovery

(e) Quality test of a radiographic cassette

(f) Radiographic cassette

## PART - B

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

3. Define in brief construction of an X-ray film.

4. What is sensitometric test of a film processor ? Explain.

5. What is Computed Radiography ? How does it work ?

6. Write a note on Anger Scintillation Camera.

7. What are the requirements when planning a traditional dark room ?

## PART - C

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

8. Explain in detail about the radiographic film processing chain in wet processing.

9. Write an essay on Flat Panel Detectors.

10. What is intensifying screen ? Explain about its construction, function and efficiency.

11. Write in detail about the artifacts encountered during radiography. How can they be tackled ?