

[LK 0217]

FEBRUARY 2017

Sub. Code: 1404

**DIPLOMA IN RADIOLOGY IMAGING TECHNOLOGY
FIRST YEAR**

PAPER IV – X-RAY FILM/IMAGE PROCESSING TECHNIQUES

Q.P. Code : 841404

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe about the layers of X-ray film and its role in image formation.
2. Construction of X-ray Image intensifier and Mechanism of action.
3. Automatic film processor.

II. Write notes on:

(10 x 5 = 50)

1. Image Contrast.
2. Factors determining image quality and discuss about radiographic mottle.
3. Construction of intensifying screens.
4. Discuss about the SPEED of intensifying screens and the factors increases the speed of screen.
5. Characteristic curve of X-ray film.
6. Types of X-ray films.
7. X-ray film artifacts.
8. Dark room illumination.
9. Construction of Laser imager and its advantages.
10. Name the various parts of Cassette and its use in production of radiographic image.

III. Short answers on:

(10 x 2 = 20)

1. Wide exposure Latitude.
2. Geometric unsharpness.
3. Line spread function.
4. Magnification of radiographic image.
5. Phantom image.
6. Intrinsic conversion efficiency and screen efficiency.
7. Resolving power of X-ray Film.
8. Rare earth intensifying screens.
9. Latent image center.
10. Minification and flux gain.
