[LB 0212] **AUGUST 2012** **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**

(180 Mins) Answer ALL questions in the same order.

I. Elaborate on:	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Describe the characteristics of an X- Ray film with diagrams.	7	20	10
2. Describe the workflow on automatic film processor unit.	7	20	10
3. What are the intensifying screens? What are the factors affecting the speed of screen?	7	20	10

III. Write notes on:			
1. What is film sharpness? What are the factors affecting film sharpness?	4	9	5
2. What is image quality? Describe factors affecting image quality.	4	9	5
3. What are the precautions used for storage of unexposed x-ray films?	4	9	5
4. What is dark room illumination and safe light?	4	9	5
5. Describe functions of accelerator and preservative in a developer solution.	4	9	5
6. What is luminescence and what are its two effects?	4	9	5
7. What are film hangers? Describe various types and uses of hanger?	4	9	5
8. Describe the various processing faults.	4	9	5
9. Describe the methods of film washing and drying.	4	9	5
10. What are cassettes? What are the precautions taken in maintenance of cassettes?	4	9	5

III. Short Answers on:			
1. What is a screen type x-ray film?	1	3	2
2. What is direct exposure type of x-ray films? Give two examples.	1	3	2

3. How does the temperature and time affect the film development?	1	3	2
4. Write short note on film fixing.	1	3	2
5. What is latent image?	1	3	2
6. What are blue sensitive films?	1	3	2
7. What are the uses of dark room?	1	3	2
8. What is film fog?	1	3	2
9. What are rare earth metals?	1	3	2
10. What are various sizes of double coated films available?	1	3	2

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[LC 0212] FEBRUARY 2013 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: **(3X10=30)**

1. What is film sharpness? What are the factors affecting film sharpness?
2. Draw cross sections of double coated and single coated X-ray films. What are the advantages and disadvantages of double coated X-ray film?
3. What are the intensifying screens? What are the factors affecting the speed of screen?

II. Write notes on: **(10X5=50)**

1. What are the advantages and disadvantages of automatic film processors?
2. What is image quality? Describe factors affecting image quality.
3. What are the precautions used for storage of unexposed x-ray films?
4. What is dark room illumination and safe light?
5. Describe the characteristic curve of an x-ray film.
6. Describe functions of accelerator and preservative in a developer solution.
7. What are cassettes? Describe precautions in use of cassettes.
8. What is direct exposure type of x-ray films? What are the advantages of direct exposure type of x-ray film?
9. What are the various methods of film printing?
10. Write short note on film fixing.

III. Short Answers on: **(10X2=20)**

1. What is a screen type x-ray film?
2. What are rare earth metals?
3. Describe dental film.
4. What is the composition of a developer solution?
5. What is latent image?
6. What are the basic constituents of a fixer solution?
7. What is importance of pH in processing?
8. What is phosphorescence?
9. What are panchromatic films?
10. What are various types of film hangers.

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[LD 0212] **AUGUST 2013** **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. What is film sharpness? What are the factors affecting film sharpness?
2. Explain about the chemical constituents of fixer and developer
3. Draw a cross section diagram of an intensifying screen and list its functions.

II Write notes on **10 x 5 = 50**

1. Explain about the single coated X ray films.
2. How to test for light leakage in X-ray cassettes
3. List the factors affecting the speed of screen.
4. The tests for timers.
5. Describe about the characteristic curve of the X-ray film
6. List the advantages and disadvantages of day light system.
7. Explain about modern image processing rooms.
8. Care of processing equipment in a manual processor.
9. Unsharpness in the radiographic image.
10. List the types of intensifying screens and give their advantages.

III Write short answers on **10 x 2 = 20**

1. What is a cassette pass box?
2. Why is pH scale important in processing?
3. Examples of rare screen materials
4. What is a base and what is it made of?
5. Explain about dental film
6. Explain about base fog
7. What are panchromatic films
8. Explain about replinisher.
9. Structure of single sided films.
10. What is safe light filter made up of?

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