

**BACHELOR OF SCIENCE (RADIOLOGY & IMAGING TECHNOLOGY) (CBCS-2019
COURSE)**

**B.Sc. (R&IM) Sem III : WINTER :- 2021
SUBJECT: DARK ROOM TECHNIQUES**

**Day : Monday
Date 14-02-2022**

W-22510-2021

**Time : 10:00 AM-12:00 PM
Max. Marks: 60**

N.B.

- 1) There are **THREE** section as
Section A :- Objective Type questions : 20 marks
Section B :- Long Answer Questions : 20 marks
Section C :- Short Answer Questions : 20 marks
- 2) Section A is given on **SEPARATE** sheet and has to be answered on **SAME** sheet.
This sheet should be completed within **first 20 minutes** of starting of the examination. The sheet with **section A** will be collected by Supervisor at the end of 20 minutes.
- 3) You have to make such kind of mark in the box of the appropriate answers.

Seat No. : _____

SECTION – A

M.CQ.'s

(20)

Q.1 Blackness of exposed film after processing is called

- Resolution
- Sharpness
- Density
- Contrast

Q.2 Single coated films are used for

- Mammography
- Ultrasound
- CT
- All of the above

Q.3 The device to keep the X-Ray film for exposure

- X-Ray cassette
- X-Ray Magazine
- X-Ray box
- X-Ray container

Q.4 The super coating is made of

- Cellulose chloride
- Varnish
- Gelatin
- None of the above

PTO

Q.5 Which is not them about film

- parallax effect does not occurs with double coated film.
- base is blue tinted.
- each grain is about 1 micron in size.
- crossed over in double coated film increases unsharpness.

Q.6 Density is proportional to

- increase in exposure
- increase in amount of silver present
- increase in developing time
- all of the above

Q.7 Fluorescent material used in intensifying screens is

- Silver bromide
- Calcium tungstate
- Calcium carbonate
- Potassium bromide

Q.8 The speed of the intensifying screen primarily depends on

- Type of film
- Size of the focal spot
- Size of the phosphor crystals
- Material used for the cassette

Q.9 The material used for floor of the dark room should be

- Resistant to chemicals and staining
- Non porous
- Non slippery
- all of the above

Q.10 Which of the following is the accelerator in the developer?

- Sodium carbonate and sodium hydroxide
- Potassium carbonate
- Ammonium bromide
- None of the above

Total Marks obtained : _____

Signature of Invigilator

Signature of Examiner

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- 1) There are **THREE** section as
Section A :- Objective Type questions : 20 marks
Section B :- Long Answer Questions : 20 marks
Section C :- Short Answer Questions : 20 marks
 - 2) Section B has four long answer questions and **ANY TWO** questions have to be answered.
 - 3) Section C has six short answer questions and **ANY FIVE** questions have to be answered.
 - 4) Section B and C should be written in **SAME** answer sheet.
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SECTION – B

Long answer questions (attempt ANY TWO) (20)

- 1) Describe the structure of an X-Ray plate, mentioning the function of each layer.
- 2) Give a detailed account of the components of Fixer solution.
- 3) Enumerate the steps in the development of an X-Ray film and give reasons for the sequence.
- 4) Draw a detailed diagram of the X-Ray cassette mentioning the function of each component.

SECTION – C

Short answer questions (attempt ANY FOUR) (20)

- 1) What is meant by drying? Draw a diagram of drying cabinet.
- 2) Name the components of tanks and trays in dark room.
- 3) What are requirements of the material used in dark room floor?
- 4) What are the components of Replenisher solution?
- 5) What are acidic and alkaline solutions?
- 6) How will you process single coated film?
