

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

B.Sc. (R&IM) Sem-V : WINTER :- 2021
SUBJECT: DIGITAL RADIOGRAPHY

Day : Tuesday
Date 1/2/2022

W-22533-2021

Time : 10:00 AM-12:00 PM
Max. Marks: 20

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 in **SEPARATE** sheet and has to be answered on same test.
- 3) Section B has four long questions and **ANY TWO** questions have to be answered.
- 4) Section C has six short questions and **ANY FOUR** questions have to be answered.
- 5) You have to make \surd such kind of mark in the box of the appropriate answers.

Seat No. _____

SECTION-A

MCQ's

Q.1 Which of the following is a wrong statement for Computed Radiography systems:

- a) Europium is the activator element
- b) Image reading is performed using laser
- c) Photostimulable phosphor is silver halide
- d) Cassettes are used.

Q.2 CCD means:

- a) Charged Couple Device
- b) Continuous Charged Detector
- c) Conventional charged Device
- d) Continuous Conventional Device

Q.3 HSG is an investigation of

- a) Urinary Bladder
- b) Fallopian Tube
- c) Ureters
- d) Urethra

Q.4 In modern image intensifiers the input fluorescent screen is made of

- a) Zinc Sulphate
- b) Barium Sulphate
- c) Copper Bromide
- d) Cesium Iodide

P.T.O.

Q.5 TFT array in flat panel detector DR systems is made of:

- a) Coarse Antimony
- b) Amorphous Selenium
- c) Powdered nickel
- d) Dry Manganese

Q.6 In Digital Radiography, Spatial resolution is determined by:

- a) Pixel size
- b) Matrix size
- c) Type of detector
- d) MAS

Q.7 What is full form of DICOM?

- a) Digital Information and Communications in Medicine
- b) Digital Imaging and Cooperation in Medicine
- c) Digital Imaging and Communications in Medicine
- d) Digital Informatics and Communications in Medicine

Q.8 What is the current phosphor of choice for input phosphor in fluoroscopy?

- a) Europium Halide
- b) Zinc- cadmium sulphide
- c) Cesium Iodide
- d) Gadolinium oxysulfide

Q.9 Characteristic curve of Photostimulable phosphors (PSP) is:

- a) Linear wide latitude
- b) Non-linear wide latitude
- c) Linear narrow latitude
- d) Non-linear narrow latitude

Q.10 Over- exposure is corrected in DR with the help of:

- a) Post- processing
- b) Quantum mottle
- c) Poor-image quality
- d) Plate readout by laser beam

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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 questions and **ANY TWO** have to answered.
- 3) Section C has six short questions and **ANY FOUR** have to be answered.
- 4) Answer to both the sections should be written **SAME** answer books.

SECTION-B

Q.1 Answer **ANY TWO** out of **FOUR** questions: (10 x 2 = 20)

- a) Write in detail about indirect digital radiography and its merits and demerits over conventional radiography.
- b) What is PACS? Write advantages and disadvantages of PACS.
- c) What is DICOM? Write in detail about its uses.
- d) What are advantages and disadvantages of CR cassettes?

SECTION-C

Q.2 Answer **ANY FOUR** out of **SIX** questions: (5 x 4 = 20)

- a) Direct digital radiography.
- b) CR reader.
- c) Control panel of radiographic equipment.
- d) Automatic exposure control.
- e) CR Cassette.
- f) Indirect flat panel detectors.

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