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

B.Sc. (R&IM) Sem-IV :SUMMER- 2022 SUBJECT : BASIC CT IMAGING-I

Day: Tueso Date: 26-0	•	S-22525-2022	Time: 10:00 AM-12:00 PM
N.B.:	• • • • • • • • •		Max. Marks : 20
	1)	There are Three sections as	
		Section -A = Objective Type questions	20 Marks.
		Section -B = Long Answer Questions Section -C = Short Answer Questions	20 Marks. 20 Marks.
	2)	Section A is given in SEPARATE sheet and has to	
		This sheet should be completed within the first 20	minutes of starting of the
		examination.	· ·
	3)	This sheet with Section A only will be collected by Section B has four long questions and ANY TWO	-
	4)	Section C has six short questions and ANY FOUR	
	5)	Put √ in the appropriate box below the question nu	mber once only.
Seat N	No.:		
		SECTION – A	
Q.1	M	ultiple choice questions. Choose the single best of	petion. $[10 \times 2 = 20]$
	1) VI	RT stands for:	
	a)	Volume-Reconstruction Technique	
	b)	Volume-Rendered Technique	
	c)	Voxel-Rendered Technique	
	d) [Voxel-Reconstruction Technique	
	2) M	IP stands for:	
	a)	Minimum Intensity Projection	
	b)	Maximum Intensity Projection	
	c)	Multiple Intensity Projection	
	d)	Maximum Intensity Performance	
	3) No	egative oral contrast for CT abdomen study contains	::
	a)	Diatrizoate	
	b)	Iomeprol	
	c)	Gadolinium	
	d) [Mannitol	
		That is the maximum concentration of Iodine within ed for CT Cisternogram study?	the contrast agent that can be
	a)] 400	
	b)	500	
	c) [300	
	d)	<u>]</u> 350	

5)	For CECT study, which blood investigation is to be checked before injecting contrast?
a)	Hemoglobin Level
b)	Creatinine Level
c)	Uric Acid Level
d)	Complete Blood Count
6)	For CT abdomen study, Patient is positioned:
a)	Feet First, Supine
b)	Head First, Prone
c)	Head First, Supine
d)	Feet First, Prone
7)	For CT head study, patient is positioned:
a)	Feet First, Supine
b)	Head First, Prone
c)	Head First, Supine
d)	Feet First, Prone
ο.	
8)	MPR Stands for:
a)	Maximum Planar Reformation
a) b)	Maximum Planar Reformation Multi Planar Reformation
a)b)c)	Maximum Planar Reformation Multi Planar Reformation Minimum Planar Reformation
a) b)	Maximum Planar Reformation Multi Planar Reformation
a)b)c)	Maximum Planar Reformation Multi Planar Reformation Minimum Planar Reformation
a)b)c)d)	Maximum Planar Reformation Multi Planar Reformation Minimum Planar Reformation Multi Part Reformation
a)b)c)d)	Maximum Planar Reformation Multi Planar Reformation Minimum Planar Reformation Multi Part Reformation Collimation directly reduces:
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a)b)c)d)9)a)b)	Maximum Planar Reformation Multi Planar Reformation Minimum Planar Reformation Multi Part Reformation Collimation directly reduces: Resolution Dose
a)b)c)d)9)a)b)c)d)	Maximum Planar Reformation Multi Planar Reformation Minimum Planar Reformation Multi Part Reformation Collimation directly reduces: Resolution Dose Dose Tube Voltage
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 a) b) c) d) 9) a) b) c) d) 10) a) 	Maximum Planar Reformation Multi Planar Reformation Minimum Planar Reformation Multi Part Reformation Collimation directly reduces: Resolution Dose Dose Area Product Tube Voltage Smallest complete sample of an image is Detector
a) b) c) d) 9) a) b) c) d) 10) a) b)	Maximum Planar Reformation Multi Planar Reformation Minimum Planar Reformation Multi Part Reformation Collimation directly reduces: Resolution Dose Dose Area Product Tube Voltage Smallest complete sample of an image is Detector Pixel
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B.Sc. (R&IM) Sem-IV :SUMMER- 2022 SUBJECT : BASIC CT IMAGING-I

Day: Tuesday
Date: 26-07-2022

S-22525-2022

Time: 10:00 AM-12:00 PM

Max. Marks: 40

N.B.:

1) There are Three sections 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 be answered.
- 3) Section C has six short questions and ANY FOUR have to be answered.
- 4) Answer to both sections should be written in same answer book.

SECTION - B

- **Q.1** Answer **ANY TWO** out of **FOUR** questions: $[10 \times 2 = 20]$
 - a) How do you perform CECT abdomen study? Write about patient preparation, patient position, indications, contraindications and scan technique.
 - b) How do you perform HRCT Thorax Study? Write about patient preparation, patient position and scan technique.
 - c) How do you perform HRCT Temporal Study? Write about patient preparation, patient position and scan technique.
 - **d)** How do you perform CT Aortography Study? Write about patient preparation, patient position and scan technique.

SECTION - C

- Q.1 Answer ANY FOUR out of SIX questions: $[5 \times 4 = 20]$
 - a) Write in short about calibrating and lubricating the CT equipment.
 - b) Write in detail about preventive maintenance routine for CT equipment.
 - c) Write in short about Maximum Intensity Projection.
 - d) Write in short about streak and ring artifact.
 - e) How do you perform CT orbit study?
 - f) Write in short about slip ring technology.