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# RADIOGRAPHIC TECHNIQUES HSSC-II

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me	allow		DIOGRAPHIC TECH SECTION - A (N		QUES HSSC-II		
TE:	the	questio	is compulsory and comprises pages 1 on paper itself. It should be complete perintendent. Deleting/overwriting is no	d in th	parts of this section are to be answered on e first 25 minutes and handed over to the yed. Do not use lead pencil.		
1	Circle	the co	rrect option i.e. A / B / C / D. Each part	carries	s one mark.		
	(i)	Which	h of the following is the Atomic Number of	tungst	en?		
		A.	24	B.	54		
		C.	74	D.	94		
	(ii)	Whic	Which of the following is an ionizing radiation?				
		A.	Radio-waves	B.	Microwave		
		C.	Gamma-rays	D.	F.M waves		
	(iii)	iii) Which of the following is INCORRECT about X-ray?					
		A.	Very low frequency	B.	Very small wavelength		
		C.	Very high energy	D.	Can cause genetic mutation		
	(iv)	Whic	h of the following is CORRECT about X-ra	ay?			
		A.	Non-ionizing	B.	Wavelength in angstrom		
		C.	Energy less than the sunlight	D.	Safe in pregnancy		
	(V)	Whic	h of the following is INCORRECT about X	-ray ge	eneration?		
		A.	Electrons are boiled by filament heatin	g B.	Anode is positively charged		
		C.	High KVs (100 kv)	D.	Large amount of heat is produced		
	(vi)	Whic	h of the following is INCORRECT about n	nammo	graphy?		
		A.	Study of mammary glands	B.	Low dose radiations are used		
		C.	Useful in detecting cancer	D.	Is done by the common X-ray machine		
	(vii)	Whic	h of the following is INCORRECT about r	mammo	ography machine?		
		A.	Dedicated machine	B.	Different filter and anode		
		C.	About 60 KVs are used	D.	Compression device		
	(viii)	Whic	Which of the following is INCORRECT about angio-graphy?				
		A.	Contrast study of blood vessels	B.	Catheterization may be needed		
		C.	Invasive procedure	D.	May be done by MRI		
	(ix) Which of the following is INCORRECT about barium study?						
		A.	Barium sulphate is used as contrast	B.	Barium is an inert material		
		C.	Is easily absorbed through gut	D.	Is used in studying GIT		
	(x) Which of the following is <b>INCORRECT</b> about Oesophagography?						
		A.	Also called barium swallow	B.	Dysphagia is the most common indication		

C.

Done under flouro

D.

Is contra indicated in children

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					.60		
(xi)		of the following is <b>INCORRECT</b> about Sia There are four pairs of salivary gland	alograpi	ny?			
	A. B.	Contrast is injected in ducts					
	C.	Parotid gland is located at angle of man	dible		~		
	D.			P. Control of the con			
(xii)		Submandibular glands are located below tongue					
(AII)	A.	/hich of the following is INCORRECT about computed radiography(CR)?					
		Special X-ray machine is used					
	B. C.	Film is replaced by a phosphor plate  Also called film—less radiography					
	D.	X-rays can be stored in computers for lo	ona time				
(viii)		of the following is INCORRECT about ga	and the control of th				
(xiii)	A.		B.	Their energy is higher than the X-ray			
		They are non-ionizing radiation					
(salas)	C.	Their wavelength is smaller than X-ray	D.	They are emitted by radioactive elements			
(xiv)		of the following belongs to Kidney?	В.	Osteon			
	A.	Hepatocyte	D.	Neuron			
(201)	C.	Nephron					
(xv)		of the following is an INCORRECT answ					
	A.	Also known as computed tomography	B.	X-rays are used for imaging			
/	C.	X-rays fall on a radiographic film	D.	It takes crossectional images			
(xvi)		of the following is INCORRECT about X-	1000				
	A.	Is painted on both the sides with radio-g	grapnic	emulsion			
	В.	Base is made of polyester or plastic					
	C.	Different sizes are available					
é in	D.	Film processing time in automatic processor is 3 minutes					
(xvii)		of the following is INCORRECT about da	irk room	17			
	A.	No sun-light allowed					
	В.	Amber colour light is used	h fil				
	C.	Cassettes are loaded and unloaded with					
(seattle	D.	Is located at a distance from the X-ray room					
(xviii)		of the following is CORRECT about CT?		Claustra ababis is seemen			
	Α.	Takes long time than MRI	В.	Claustro-phobia is common			
	C.	Helical or spiral CT are modern CT	D.	Is expensive than MRI			
(xix)	7.000000000	is INCORRECT about MRI?					
	A.	Is good for soft tissue imaging	B.	Movement does not spoil the image			
	C.	Shows better contrast than CT	D.	Children may need anesthesia			
(xx)		of the following is inflammation of bone?					
	Α.	Hepatitis	В.	Osteomyelitis			
	C.	Encephalitis	D.	Pneumonia			
For Ex	(aminer	s use only:	Total	Marks: 20			
			· Otal				



## RADIOGRAPHIC TECHNIQUES

Time allowed: 2:35 Hours

Total Marks Sections B and C: 8

Student Bounty.com Answer any twenty five parts from Section 'B' and any three questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write your answers neatly and legibly.

### SECTION - B (Marks 50)

0.2	Attempt any TWENTY FIVE parts.	The answer to each	part should not exceed 2 to 4 lines.
52,000			$(25 \times 2 = 50)$

- (i) Define lonizing radiation.
- Name lonizing and Non-ionizing radiation. (ii)
- What is Inverse square law? (iii)
- What is Collimation? (iv)
- What is Attenuation? (V)
- What is Mammography? (vi)
- How is a mammographic machine different from the common X-Ray machine? (vii)
- What is the Normal length of an oesophagus? Write down the names of normal curves seen in (viii) oesophagus.
- What is Enteroclysis? (ix)
- What is real time imaging? (x)
- (xi) What is Angiography?
- (xii) What is Infertility? What are studies done to investigate this problem?
- What is Nephrogram? (xiii)
- Name the films taken during IVU. (xiv)
- Which part of GIT is studied during barium follow through? What are the films taken in this study? (XV)
- What is Skyline view? (xvi)
- What is Orbito meatal line? What is its significance? (xvii)
- Write down the names of Para-nasal sinuses. What are the views taken for these? (XVIII)
- (xix) What is high and low osmolar contrast media?
- What are the serious side-effects of intravascular contrast media? (xx)
- What are planes of imaging? What is the plane used by CT Scan? (xxi)
- List Radiation effects. (xxii)
- What is MRI? (xxiii)
- Write four main advantages of CT Scan over MRI. (xxiv)
- How will you define Ultrasound? (XXV)
- What is Transducer? (xxvi)
- What are the three basic principles of radiation protection? (xxvii)
- (xxviii) What are the objects of radiation protection available in X-Ray room?
- What is Barium Anema? (xxix)
- Write down the procedure of Film development. (xxx)
- Briefly describe manual film processing. (xxxi)

### SECTION - C (Marks 30)

### $(3 \times 10 = 30)$ Attempt any THREE questions. All questions carry equal marks. Note:-

- Write down the differences between CT and MRI. Q. 3
- What is Dysphagia? Which is the study done for this problem? Write down the procedure of doing barium Q. 4 swallow
- What is HOCM and LOCM? Write down the side effects of ionic contrast media. Q. 5
- What is inverse square law? Where is this law applied? Write down the basic fundamentals of radiation Q. 6 protection.
- What is Fluoroscopy? What are the studies done under fluoroscopy? Q. 7

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