

C.

Magnetic Induction

Answer Sheet No. Sig. of Invigilator.

RADIOGRAPHIC TECHNIQUES HSSC-I

NOTE:-	qu	Section—A is compulsory and comprises pages 1-2. All parts of this section are to be answered on the question paper itself. It should be completed in the first 25 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.						
Q. 1	Circl	Circle the correct option i.e. A / B / C / D. Each part carries one mark.						
	(i)	Which of the following does not have any electric charge?						
		A.	Proton	В.	Electron			
		C.	Neutron	D.	Positron			
	(ii)	Whic	h of the following does not	allow the current to flov	v through it?			
		A.	Calcium	B.	Iron			
		C.	Rubber	D.	Copper			
	(iii)	Whic	n of the following paramete	r is not included in Ohr	n's Law?			
		Α.	Resistance	B.	Current			
		C.	Voltage	D.	Conductance			
	(iv)	Whic	n of the following particles I	nas negligible mass?				
		A.	Electron	B.	Proton			
		C.	Neutron	D.	Atom			
	(v)	Whic	n of the following laws is the	e working principle of a	Generator?			
		A.	Coulomb's Law	B.	Ohm's Law			
		C.	Laws of Resistance	D.	Faraday's Law			
	(vi)	Whic	n of the following is the unit	of Energy?				
		A.	Ohm	В.	Watt			
		C.	Watt-Hour	D.	Ampere			
	(vii)	Whic	n the following is defined as	s Capacity to do work?				
		A.	Power	B.	Potential Difference			
		C.	Current	D.	Energy			
	(viii)	Which of the following machines converts electrical energy into mechanical energy?						
		A.	Generator	B.	Ampere-meter			
		C.	Motor	D.	Transformer			
	(ix)	Which of the following is TRUE according to Coulomb's Law?						
		A.	Like charges attract eac	h other				
		B.	Unlike charges attract ea	ach other				
		C.	Only Negative charge at	ttracts the positive char	ge			
		D.	Positive charge repels the	ne negative charge				
	(x)	Whic	n of the following is the wor	king principle of Transf	former?			
		Α.	Mutual Induction	В.	Self Induction			

D.

Electromagnetic Induction

DO NOT WRITE ANYTHING HERE

Student Bounty com Which of the following is the unit of Frequency? (xi) B. Ampere A. Ohm C. D. Hertz Watt (xii) Which of the following value of A.C is commonly used? Average Value Peak Value C. R.M.S. Value D. Resonance Value Which of the following effect of current is used in thermionic emission? (xiii) Heating effect B. Mechanical effect C. Lighting effect D. Magnetic effect What is set up around the wire when current passes through it? (xiv) Magnetic field Electric field C. Electromagnetic field D. Nothing happens In which of the following circuits, current remains the same through all the resistances? (xv) A. Parallel circuit B. Series-Parallel circuit C. Series circuit None of these D. Which of the following films is used for chest X-Ray? (xvi) A. 14 x 16 10 x 12 B. C. 10 x 10 D. 08 x 10 Which of the following is the unit of radiation exposure? (xvii) A. Rad Rem Roentgen D. Curie Which of the following units is used to measure the biologic effects of radiation? (xviii) A. Rad Rem Curie Roentgen D. Which of the following is TRUE for definition of Ionization? (xix) A. An electron is added to an atom A proton is added to an atom Removal of an electron from an atom An electron is removed or added to an atom C. D. How many maximum electrons can occupy the third orbit? (xx) A. 8 B. 18 32 C D. For Examiner's use only: Total Marks: Marks Obtained:

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RADIOGRAPHIC TECHNIQUES HSSC-I

Total Marks Sections B and C: 80

Student Bounty.com Time allowed: 2:35 Hours NOTE:- Answer any ten 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)

		SECTION - B (Marks 30)				
Q. 2	Attem	pt any TEN parts. The answer to each part should not exceed 2 to 4 lines.	(10 x 5 = 50)			
	(i)	What is Ohm's Law?				
	(ii)	What is Potential difference?				
	(iii)	Differentiate between Power and Energy.				
	(iv)	What is the difference between Series and Parallel circuit?				
	(v)	Define Laws of Resistance.				
	(vi)	What is Electromagnet?				
	(vii)	Differentiate between A.C and D.C.				
	(viii)	What is Farady's Law of electromagnetic induction?				
	(ix)	What is magnetic induction?				
	(x)	What is Capacitor and Capacitance?				
	(xi)	What is Transformer?				
	(xii)	What is the R.M.S. value of A.C?				
	(xiii)	What is Radiation?				
	(xiv)	List the types of films used in Radiology.				
	(xv)	How is a film processed?				
		SECTION C (Marks 20)				
		SECTION - C (Marks 30)				
Note:	Attempt any THREE questions. All questions carry equal marks. (3 x 10					
Q. 3	Write down the questions asked to a patient before any procedure.					
Q. 4	Discuss structure and working of Transformer.					
Q. 5	What is Rectification? Discuss with diagrams.					
Q. 6	Discuss the working of an Electric Generator.					
Q. 7	What is Radiation? Discuss its units and their use.					
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