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and the same and the

XII-Physics, Chapter# 16, Page# 18 16.18 MULTIPLE CHOICE QUESTIONS OF PAPERS:

Elec	tromagnetic V	Vaves:				
Q.1	Electromagnetic '	Waves consists of:	•			
	* Magnetic field		* Electric field			
	* Electric and ma	gnetic field moving	perpendicular to e	ach other		
•	* Electric and magnetic field moving perpendicular to each other * Electric and magnetic field moving parallel to each other					
Q.2.		magnetic wave in t		by: (2013, 2007)		
	* $\sqrt{\mu_o \in_o}$	* $\frac{1}{\sqrt{\mu_o \in_o}}$	* μ₀∈ ₀	* $\frac{1}{\mu_0 \in 0}$		
Q.3	The electromagne	etic waves travel is f	free space with the			
	* Equal to the spe		* Equal to the spe	•		
	* Less than the sp	eed of light	* Greater than the			
Q.4	Electromagnetic v	waves are:				
	* Longitudinal	* Transverse	* Stationary	* Complex		
Q.5	Which of the follo	owing are electroma	ignetic waves?			
	* Sound waves	* Water waves	_	* Complex waves		
Q.6	The direction of p	ropagation of an ele		-		
	* Perpendicular to		* Perpendicular to			
	* Parallel to electr		* Perpendicular to			
Q .7	Electromagnetic v	vaves have frequenc				
	* 10 ⁴ Hz	* 10 ⁵ Hz	* 10 ⁶ Hz	* 10 ¹² Hz		
Q.8.	The device which			netic wave is called:		
	* Decorder	* Diode	* Antenna	* Semi conductor		
Q.9	The waves from the	ne antenna are:				
	* Expanding plane	wave fronts	* Concentric sphe	res		
	* Expanding wave	es	* None of these			
Mod	lulation;	· · · · · · · · · · · · · · · · · · ·				
Q.10	The process of ge is called:	enerating the effect	of Audio Signal i	n Electromagnetic wav		
	* Modulation	* Amplification	* Biasing	* Rectification		
Q.11.	Choose the right of			•		
			* Amplitude mod	ulation		
	* Amplitude mag	nification	* Amplitude meas			
Q.12.	The process in which original signal is recovered from modulated signal is called:					
	* Doping	* Biasing	* Rectification	* Demodulation		
Q.13.	In frequency mod does not change:	_		g of the original signa		
	* Pitch	* Wavelength	* Frequency	* Amplitude		

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* Neutrons

Ban	d Theory of Solid:						
Q.14	The electrons in the outermost shell of an atom are called:						
	* Tightly bound electron						
	* Free electrons * Loosely bound electrons						
Q.15	A vacant or partially filled band is called:						
•	* Fermi bond						
0.16	The band above the valence band is called:						
•	* Conduction band * Forbidden band * Covalent band * Occupied band						
0.17	The which have partially field conduction bands are called:						
	* Insulators						
Q.18	The energy band occupying valence electrons is known as:						
_	* Valence band * Conduction band* Convection band* Radiation band						
Q.19	In a semiconductor:						
	* The electrons move in the conduction band while the holes move in the						
	forbidden band.						
	* The holes move in the conduction band and the electrons move in the forbidden						
٠.	band.						
	* The electrons move in the conduction band and the holes move in the valence						
	band.						
	* The holes move in the conduction band and the electrons move in the valence band only.						
0.20	A substance which has empty conduction band is called:						
Q.20	* Semiconductor * Conductor * Insulator * Transistor						
Sam	ii-Conductors:						
Q.21	The substances with conductivities of order $10^{-6} \Omega \text{ m}^{-1}$ to $10^{-4} \Omega \text{ m}^{-1}$ are: * Semiconductor * Conductor * Good conductor * Insulator						
0.33							
Q.22	Solids with intermediate conductivity of the order 10^{-6} to $10^{-4} \Omega$ m ⁻¹ is called:						
0.44	* Conductor * Semiconductor * Insulator * Good conductor						
Q.23	Which one of the following is not a semiconductor:						
0.24	* Copper * Silicon * Germanium * Gallium arsenide The process of adding a small amount of impurity into the process of adding a small amount of the process of adding a small amount of impurity into the process of adding a small amount of the process of a small amount of the process of adding a small amount						
Q.24	The process of adding a small amount of impurity into the pure semiconductors is called:						
	* Mixing * Dropping * Doping * Inserting						
Q.25							
	* Extrinsic semiconductor * Intrinsic semiconductor						
	* P-type semiconductor						
Q.26	The semi-conductor is its extremely pure form is called:						
	* Extrinsic semiconductor * Intrinsic semiconductor						
	* N-type semiconductor						
Q.27	To make N-type substance, Antimony is mixed with:						
5	*Boron *Silicon *Germanium *Indium						
Q.28	To make P-type substance, Indium is mixed with:						
	* Boron * Silicon * Germanium * Antimony						
Q.29	In the P type substance, charged carries are:						

* Positive * Negative * Ions

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XII-Physics, Chapter# 16, Page# 20 Q.30 In the N type substance charged carries are: * Positive * Negative * Ions Neutrons Q.31 Majority carries in an N type substance are: * Positrons * Electron * Protons Q:32 Minority carries in N type substance are: * Protons * Positrons * Electron * Hole Q.33 Majority carries in a P type substance are: * Protons * Hole * Electrons * Positr Q.34 Minority carries in a P type substance are: * Positrons *Protons * Electron * Neutrons * Hole • Q.35 Donor impurities are: * G_e and S_i * I_n and G_a * S_b and A_s * L_i and G_a Q.36 The Process of adding impurity of Trivalent or Pentavalent into Semi Conductor is called: * Modulation * Rectification * Doping * Biasing Q.37 The Semi Conductor mixed with impurity of Trivalent or Pentavalent is * None of these * Extrinsic Semi Conductor * Electronic device * Intrinsic Semi Conductor The dev 218 Q.38 PN-Junction Diode works as an insulator if connected: * to A.C source * in forward bias * in reverse bias * all of these Q.39 The potential difference applied across P-N junctions which results in the reduction of the barrier potential is: * Reverse basing * Forward blasing * Charging * Induction Q.40 A Semi-conductor Diode is used as: *An amplifier *An oscillator *A rectifier * Holes Q.41 A PN-junction can be used as: * Rectifier * Amplifier * Transformer * Ohm-meter Q.42 The two terminal Semi Conductor device used as a rectifier is called: * Diode * Transistor * Triode * P-type device

Q.43 The Process of converting A.C into D.C is called:

* Modulation * Amplification * Biasing * Rectification Q.44 Whenever a Potential is applied across the P-n junction diode so as to increase the height of the Potential barrier, the diode is said to be: * Both reverse and forward biased * Reverse biased * Forward biased Q.45. Whenever a Potential is applied across the P-n junction diode so as to E. 2 decrease the height of the Potential barrier, the diode is said to be: * Both reverse and forward biased * Choked * Forward biased * Reverse biased Q.46 The diode which gives off visible light when energized is called: (2013) * Photo diode * L.C.D. * Photovoltaic diode * L.E.D.

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Transistor:

Q.47 A transistor in a circuit basically used as: * An amplifier * An oscillator * Full wave rectifier * A half wave rectifier **O.48** The three portions of transistor form: * Three junction * Four junction * Six junction * Two junction Q.49 In case of a transistor, the central portion has to be: * N-type or P-type * None of these * N-type * P-type Q.50 The term transistor stands for: Transfer of voltage * Transfer of resistance * Transfer of power * Transfer of current O.51 The symbol of NPN transistor is: Q.52 The symbol of NPN transistor is: Q.53 In the transistor be Rematic symbol, the arrow: * Is located on the emitter * Is located on the base * Points form north to south * Is located on the collector Q.54 Emitter Base junction is forward biased in: * NPN transistor * PNP transistor * Both PNP and NPN transistor * Rectifier Q.55 The three terminal device, used as an amplifier and brought revolution in Electronics is called. * Diode * Triode * Transistor Q.56 The device which rises the strength of a weak signal at the output is: * Amplifier * Decorder * Recorder * Diode Q.57. Base - Emitter junction and Base-Collector junction of transistor are: * Forward biased and reverse biased * Reverse biased and forward biased * Both forward biased * Both reverse biased Q.58 The semi-conductor device which increases the strength of weak input signal at the output is a: * N-type semi conductor * P-n diode * Transistor * P-type semi conductor Q.59 Which quantity of audio signal is changed by transistor:

* Amplitude

* All of these

* Frequency

* Wave length

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KEY

(1) Electric and magnetic field moving perpendicular to each other	(21) Semiconductor	(41) Rectifier		
$(2) \frac{1}{\sqrt{\mu_o \in_o}}$	(22) Semiconductor	(42) Diode		
(3) Equal to the speed of light	(23) Copper	(43) Rectification		
(4) Transverse	(24) Doping	(44) Reverse biased		
(5) Radio waves	(25) Extrinsic semiconductor	(45) Forward biased		
(6) Perpendicular to both fields	(26) Intrinsic semiconductor	(46) LED		
(7) 10 ⁶ Hz	(27) Germanium	(47) An amplifier		
(8) Antenna	(28) Germanium	(48) Two junction		
(9) Expanding waves	(29) Positive	(49) N-type or P-type		
(10) Modulation	(30) Negative	(50) Transfer of resistance		
(11) Amplitude Modulation	(31) Electron	(51) E C		
(12) Demodulation	(32) Hole	(52) E C		
(13) Frequency	(33) Hole	(53)		
(14) Valance electron	(34) Electron	(54) Both PNP and NPN transistor		
(15) Conduction band	(35) S _b and A _s	(55) Transistor		
(16) Conduction band	(36) Doping	(56) Amplifier		
(17) Conductors	(37) Extrinsic semiconductor	(57) Forward biased and reverse biased		
(18) Valence band	(38) in reverse bais	(58) Transistor		
(19) The electrons move in the conduction band and the holes move in the valence band	(39) Forward biasing	(59) Amplitude		
(20) Insulator	(40) A rectifier			