PHYSICS – XI (TBSE) · (MCQ)

1) The angular speed of minute hand of clock.

a) $\frac{2\pi}{60}$ rad/s · b) $\frac{2\pi}{3600}$ rad/min c) 2π rad/hr d) none

2) A particle moving 60 times in a minute in a circular path. Find angular speed of particle –

a) 1 b) 360° c) 2π degree/sec d) 2π rad/s ·

3) A particle of mass m moving in a circular path of radius 'r' with angular speed 'ω'. Find its angular momentum

a) $mr\omega^2$ b) $mr\omega$ c) $mr^2\omega$ d) $\frac{1}{2}mr^2\omega$

4) Angular speed of earth's diurnal motion.

a) $\frac{2\pi}{60}$ rad/s · b) $\frac{2\pi}{3600}$ rad/s · c) 2π rad/s · d) none ·

5) Two objects of masses m_1 and m_2 rotates on circular path of radii r_1 and r_2 · what is the ratio of angular speed if their time periods are same;

a) 1:1 b) $m_1 : m_2$ c) $r_1 : r_2$ d) $m_1r_1 : m_2r_2$

6) an object of mass 2kg revolves around a circular path of radius 2m with 10rpm speed · ~~Find the~~ what is the centripetal force on the object.

a) 4·38 N b) 503 N c) 50N d) 5N ·

7) Total torque on a system is zero · which is constant?

a) Force b) Linear momentum c) Angular momentum d) Impulse ·

8) A particle in cirlar path revolves with angular speed 'ω'. Its time period is –

a) $\frac{\omega}{2\pi}$ b) $2\omega\pi$ c) $\pi\omega$ d) $\frac{2\pi}{\omega}$

9) Frequency of a wheel is 120 rpm, frequency in rad/s is

a) π b) 4π c) π^2 d) $4\pi^2$

10) A circular disc of radius r rotating about diameter as axis. what is its radius of gyration?

a) r b) $\frac{r}{\sqrt{2}}$ c) $\frac{r}{2}$ d) $\frac{r}{3}$

11) Dimension of moment of inertia —

a) ML^2 b) ML^2T^{-1} c) ML^2T^2 d) MLT^{-2}

12) Dimension impulse —

a) ML^2T^{-1} b) ML^2T^{-2} c) MLT^{-2} d) ML^2T^{-2}

13) which of the following pairs have same dimension?

a) work, torque b) work, Angular momentum c) Energy, moment of inertia d) Power, radius of gyration.

14) velocity of object at highest point of a vertical circular motion of radius 'r' is v_c —

a) $v_c = \sqrt{gr}$ b) $v_c = \sqrt{2gr}$ c) $v_c = \sqrt{3gr}$ d) $v_c = \sqrt{5gr}$.

15) velocity of object at lowest point of a vertical circular motion of radius 'r' is V_c —

a) $V_c = \sqrt{gr}$ b) $V_c = \sqrt{2gr}$ c) $V_c = \sqrt{3gr}$ d) $V_c = \sqrt{5gr}$.

16) coefficient of friction of a circular path of radius 'r' is μ, The condition of safe journey without banking of speed v is

a) $v \leq \sqrt{\mu rg}$ b) $v \geq \sqrt{\mu rg}$ c) $v \leq \sqrt{\mu r^2 g}$ d) $v \geq \sqrt{\mu r^2 g}$

17) the angle made by a cyclist for circular path of radius 'r' with speed v is

a) $\theta = \tan^{-1}\left(\frac{v^2}{rg}\right)$ b) $\theta = \tan^{-1}\left(\frac{rg}{v^2}\right)$ c) $\theta = \tan^{-1}(v^2 rg)$ d) $\theta = \tan^{-1}\left(\frac{r}{rg}\right)$

18) In a plane road when a car take turn in a circular track it can slip out —

a) due to less centripetal force b) due to effect of reaction by road c) due to Gravitational force d) rotational friction between tyar and road.

19) A particle moving in circular path in uniform speed. The point on the plane of circle about which angular momentum is conserved —

a) point on the circumference b) point outside the circle.

b) centre of circle c) point inside the circle.

20) The moment of inertia about an axis through centre normal to the plane of circular ring of mass m and radius r —

a) $\frac{mr^2}{2}$ b) $\frac{mr^2}{4}$ c) $\frac{3}{4}mr^2$ d) mr^2

21) Angular momentum of a particle in uniform circular motion is L. If angular frequency is doubled Kinetic energy halted, new angular momentum L_1 is

a) $L_1 = 4L$ b) $L_1 = L/2$ c) $L_1 = L/4$ d) $L_1 = 2L$.

22) A solid sphere A and hollow sphere B made of same material outer radii are same. If I_A and I_B be the moment of inertia about their diameters —

a) $I_A = I_B$ b) $I_A > I_B$ c) $I_A < I_B$ d) $\frac{I_A}{I_B} = \frac{d_A}{d_B}$.

23) MI of a wheel 2 kg m^2 (axis through centre). It revolves 60 rpm speed. to stop the rotation in 1 minute, the required torque is —

a) $\frac{2\pi}{15}$ Nm b) $\frac{\pi}{12}$ Nm c) $\frac{\pi}{15}$ Nm d) $\frac{\pi}{18}$ Nm.

24) Two objects A and B are at a fixed distance. Mass of A is M and that of B is 2M. Gravitational force on B due to A, 100 N. What is the gravitational force on A by B —

a) 50 N b) 100 N c) 200 N d) none.

25) Weight of a man on earth's surface 40 kg-wt. If the radius of earth becomes half taking mass same, what will be the weight of the man —

a) 20 kg-wt b) 10 kg-wt c) 160 kg-wt d) none.

26) Mass of a planet 4 times the mass of earth and radius 2 times that of earth. The acceleration due to gravity of the planet —

a) $9.8\ ms^{-2}$ b) $19.6\ ms^{-2}$ c) $4.9\ ms^{-2}$ d) $39.2\ ms^{-2}$

27) Radius of earth is R at what height the acceleration due to gravity will be half that of at the earth's surface —

a) $\frac{R}{2}$ b) $\frac{R}{4}$ c) $(\sqrt{2}-1)R$ d) $(\sqrt{2}+1)R$.

28) Mass of earth increases by 0.1% radius increases by 0.1%, the change of acceleration due to gravity at earth's surface is

a) 0.2% increase b) 0.1% decrease c) 0.3% increase d) 0.2% dec

29) Two satellites of same mass revolves around earth at R and 3R heights from surface. What is the ratio of their kinetic energy —

a) 2:1 b) 1:2 c) 1:3 d) 4:1

30) The acceleration due to gravity at a height equal to the earth's radius will be —

a) $8\ ms^{-2}$ b) $5\ ms^{-2}$ c) $3\ ms^{-2}$ d) $2.5\ ms^{-2}$

31) Escape velocity at earth's surface v. A planet of mass and radius double that of earth. value of escape velocity at that planet —

a) v b) 2v c) 4v d) 16v.

32) change of gravitational potential energy when a mass m taken height equal to that of earth's radius from earth's surface —

a) $\frac{1}{3}mgR$ b) mgR c) $\frac{1}{2}mgR$ d) $\frac{1}{4}mgR$.

33) Dimension of Gravitational constant —

a) $M^{-2}L^{2}T^{-1}$ b) $M^{-1}L^{3}T^{-2}$ c) $ML^{2}T^{-2}$ d) $M^{-1}L^{-1}T^{-1}$

34) At what height the acceleration due to gravity $\frac{1}{4}$ times that of at surface ?

a) $2R$ b) $\frac{3R}{2}$ c) R d) $\frac{R}{2}$

35) Gravitational force is —

a) Repulsive b) accelerated c) conservative d) non-conservative

36) Dimension of gravitational force —

a) MLT^{-2} b) LT^{-2} c) ML^{-2} d) MLT^{-1}

37) which of the forces in following case is weak force —

a) electrostatic force b) Nuclear force c) Gravitational force

d) none.

38) Radius of a planet is double that of earth, density is same. Escape velocity at earth and the planet are V_e and V_p —

a) $V_e = \frac{V_p}{2}$ b) $V_e = 2V_p$ c) $V_e = \frac{V_p}{\sqrt{2}}$ d) $V_e = \sqrt{2}V_p$

39) Radius of earth R, The distance of geostationary satellite from centre of earth —

a) 5R b) 7R c) 10R d) 15R

40) Density of earth f, time period of satellite revolving very closed to the earth's surface is —

a) $T = \sqrt{\frac{3\pi}{fg}}$ b) $T = \sqrt{\frac{2\pi}{fg}}$ c) $T = \sqrt{\frac{3f}{\pi g}}$ d) $T = \sqrt[3]{\frac{\pi}{fg}}$.

41) The of acceleration due to gravity at h_1 height from surface is same that at the depth of 'h_2' from surface —

a) $h_1 = 2h_2$ b) $h_1 = h_2$ c) $h_1 = \frac{h_2}{2}$ d) $h_1 = h_2^{2}$

42) A Geostationary satellite revolves around earth with radius 36000 km. Another satellite revolves around earth some hundred Kelometere height of surface. If radius of earth 6400 km, what

43) The relation obtained from 1st Law of thermodynamics —

a) $\Delta U = \Delta Q + \Delta W$ b) $\Delta W = \Delta Q + \Delta U$ c) $\Delta U = \Delta Q - \Delta W$ d) none.

44) If work is completely converted into heat energy, the amount of work done to create 1 cal of heat —

a) 4.2×10^7 J b) 42×10^6 erg c) 2.4×10^7 erg d) 1 J.

45) In adiabatic process 10 mol of a gas have change of internal energy 100 J. what is work done by the gas?

a) −100 J b) 100 J c) 1000 J d) −1000 J.

46) The process where internal energy remains same —

a) adiabatic b) isochoric c) ~~isochoric~~ isobaric d) isothermal.

47) write relation between pressure and temperature in adiabatic process —

a) $pT^{\gamma} = c$ b) $TP^{\gamma-1} = c$ c) $P^{\gamma} T^{\gamma-1} = c$ d) $P^{\gamma-1} T^{\gamma} = c$

48) For an ideal gas $C_p = \frac{4}{3}R$, value of γ —

a) $\frac{3}{2}$ b) 2 c) $\frac{1}{3}$ d) 4

49) The internal energy of an ideal gas of given mass depends on —

a) Pressure b) volume c) temperature d) density

50) A container divided into two equal parts, One part filled with an ideal gas at pressure P and temperature T, another part is empty. The change of temperature will be, when the middle separature removed —

a) zero b) 2T c) T/2 d) $\frac{T}{3}$.

51) Molar specific heat of a system in isothermal system —

a) 0 b) 1 c) ∞ d) none.

52) For isothermal expansion of gas, heat given Q and work done by gas W —

a) $Q = W$ b) $Q > W$ c) $Q < W$ d) $Q = 2W$

53) value of J in SI system

a) 10^7 erg J^{-1} b) 4.2×10^7 erg J^{-1} c) 4.2×10^6 erg J^{-1} d) 1

54) Molar specific heat in adiabatic proces of a gas —

a) 0 b) 1 c) ∞ d) none.

55) Specific heat of an ideal gas varies with absolute temperature as —

a) T^{-1} b) T^0 c) T d) T^2

56) slope $\frac{dp}{dv}$ of Isothermal proces —

a) $-\frac{p}{v}$ b) $-\frac{v}{p}$ c) $-\frac{\gamma p}{v}$ d) $-\frac{\gamma v}{p}$.

57) slope $\frac{dp}{dv}$ in adiabatic proces —

a) $-\frac{p}{v}$ b) $-\frac{v}{p}$ c) $-\frac{\gamma p}{v}$ d) $-\frac{\gamma v}{p}$.

58) ~~out~~ which quantity does not represents thermodynamic system —

a) Volume b) temperature c) Pressure d) work.

59) For one gas $C_v = 3R$. value of γ —

a) $\frac{4}{3}$ b) 1.67 c) 1.4 d) none.

60) Velocities of ~~three~~ particles of a gas 3 cm/s, 4 cm/s, and 5 cm/s find rms value —

a) 4 cm/s. b) 2 cm/s c) $5\sqrt{\frac{2}{3}}$ cm/s d) none.

61) K = Boltzmann constant, T = temp. the average Kinetic energy of gas particle —

a) $\frac{2}{3}KT$ b) $\sqrt{\frac{2}{3}}KT$ c) $\frac{3}{2}KT$ d) $\sqrt{\frac{3}{2}}KT$

62) Two samples of a gas pressure, volume and temp. respectively, P, V, T and 2P, $\frac{V}{2}$, 2T. The ratio of ~~mole~~ number of molecules in the sample —

a) 2:1 b) 4:1 c) 8:1 d) 16:1

63) At 300K rms speed of H_2 is 1930 ms^{-1}, what is the rms speed of O_2 at 1200K —

a) 482.5 ms^{-1} b) 965 ms^{-1} c) 1930 ms^{-1} d) 3860 ms^{-1}

64) At same temp and pressure in two container H_2 and O_2 are taken. The ratio of H_2 and O_2 molecules —

a) 1:4 b) 4:1 c) 1:1 d) 1:2

65) For a gas $\gamma = \frac{C_p}{C_v}$ and molecular mass M. specific heat at constant pressure —

a) $\frac{R}{\gamma - 1}$ b) $\frac{\gamma R}{\gamma - 1}$ c) $\frac{\gamma R}{M(\gamma - 1)}$ d) $\frac{\gamma R M}{\gamma - 1}$

66. Real gases behaves like ideal gas —

a) height pressure and low temp. b) height pressure & height temp.

c) low pressure & low temp. d) low pressure & height temp.

67. RMS speed of an ideal gas C, the vale of rms speed is when volume is doubled in const. temp —

a) $\frac{C}{\sqrt{2}}$ b) $\sqrt{2}C$ c) $2C$ d) C

68. Molar mass and temp of a gas are M and T, if rms speed of molecules is c then —

a) $C = \sqrt{\frac{\gamma RT}{M}}$ b) $c = \frac{\gamma RT}{M}$ c) $C = \sqrt{\frac{3RT}{M}}$ d) $c = \frac{3RT}{m}$

69. At what temp. the rms speed of O_2 at 47°c is equal to the rms speed of H_2 ?

a) 80 k b) −73 K c) 3 K d) 20 K.

70. Mean free path of a gas, λ if number of molecule in unit volume is n, the relation between them —

a) $\lambda \propto n$ b) $\propto \frac{1}{n}$ c) $\lambda \propto \sqrt{n}$ d) $\lambda \propto \frac{1}{\sqrt{n}}$.

71. Pressure and Kinetic energy of an ideal gas are P and E —

a) $P = \frac{2}{3}E$ b) $P = \frac{1}{3}E$ c) $P = \frac{3}{2}E$ d) $P = 3E$.

72. At what temp. the Kinetic energy of gas molecules be zero?

73. For a gas velocity $\bar{c}$, rms vel. c and most probable velocity c_m then —

a) $\bar{c} > c > c_m$ b) $c_m > \bar{c} > c$ c) $c_m < \bar{c} < c$ d) $\bar{c} < c < c_m$

74. which of the relations is correct?

a) $c_m = c$ b) $c_m = \bar{c}$ c) $c_m = \sqrt{\frac{2}{3}}\, c$ d) $c_m = \sqrt{\frac{2}{3}}\, \bar{c}$

75. The speed of sound in a perfectly elastic body —

a) zero b) 332 m/s. c) infinity d) none

76. Equation of a propagative wave $y = 10 \sin \frac{\pi}{3}(150t - x)$ cm, frequency —

a) 150 Hz b) 150 KHz c) 25 Hz d) none.

77. which is not happened for sound wave?

a) Reflection b) refraction c) Polarization d) interference

78. Equation of transverse wave is $y = y_0 \sin 2\pi\left(nt - \frac{x}{\lambda}\right)$, the maximum velocity of oscillating particle of medium will be four time of wave velocity. if —

a) $\lambda = \frac{\pi y_0}{2}$ b) $\lambda = \pi y_0$ c) $\lambda = 2\pi\lambda_0$ d) $\lambda = \frac{\pi y_0}{4}$.

79. In a rigid reflector the phase difference of reflected wave —

a) 0 b) $\frac{\pi}{2}$ c) $\frac{2\pi}{3}$ d) π.

80. $y_1 = a \sin 20\pi t$, $y_2 = a \sin 16\pi t$ for these waves the time difference between the beats formed —

a) 2 s b) $\frac{1}{2}$ s c) $\frac{1}{10}$ s. d) 10 s.

81. Two open and closed tubes of same length the ratio of fundamental frequencies formed —

b) 1 : 2 c) 1 : 4 d) 4 : 1

82. Equation of a wave $y = 10^{-4} \sin\left(200t - \frac{x}{10}\right)$ m, velocity of wave —

a) 100 ms^{-1} b) 250 ms^{-1} c) 750 ms^{-1} d) 1000 ms^{-1}

83. One end closed air column produces equi-frequency with a tuning fork of frequency 264 Hz. speed of sound in air 330 ms^{-1}, in cm unit the length of air column —

a) 31.25 b) 62.50 c) 83.75 d) 15

84. Equation of propagative wave is $y = a \sin\left(\omega t - \frac{x}{v}\right)$, maximum speed of medium particle is —

a) ωa^2 b) $\frac{\omega a}{2}$ c) $2\omega a$ d) ωa.

85. In stationary wave the distance between two nodes —

a) $\frac{\lambda}{2}$ b) λ c) $\frac{3\lambda}{2}$ d) $\frac{\lambda}{4}$.

86. If wavelength is λ, the path difference between two crests —

a) $\frac{\lambda}{4}$ b) $\frac{\lambda}{2}$ c) λ d) 2λ

87. Two waves $y_1 = a \sin 2\pi n_1 t$, $y_2 = a \sin 2\pi n_2 t$, the Amplitude of resultant wave —

a) $A = 2a \cos 2\pi \left(\frac{n_1 - n_2}{2}\right) t$, b) $A = 2a \sin 2\pi \left(\frac{n_1 - n_2}{2}\right) t$

c) $A = a \cos 2\pi \left(\frac{n_1 - n_2}{2}\right) t$, d) $A = a \sin 2\pi \left(\frac{n_1 - n_2}{2}\right) t$.

88. Two end open tube, the number of ~~node and~~ anti-node and nodes are N_1 and N_2 —

a) $N_1 = N_2$ b) $N_1 = N_2 + 1$ c) $N_2 = N_1 + 1$ d) none.

89. At infinite distance from a source, what type of wave front we get —

a) circular wave front b) spherical wave front

c) any-shape " " d) plane " "

90. speed of sound in air is V and in the direction of sound propagation speed of wind v, the effective speed of sound will be —

a) $\sqrt{V^2+v^2}$ b) $\sqrt{V^2-v^2}$ c) $V+v$ d) $V-v$.

91. Expression of frequency of transverse wave in stretched string —

a) $n = \frac{1}{2l}\sqrt{\frac{I}{m}}$ b) $n = \frac{1}{2m}\sqrt{\frac{T}{L}}$ c) $n = \frac{2}{m}\sqrt{\frac{I}{L}}$ d) $n = \frac{2}{l}\sqrt{\frac{T}{m}}$

92. width of constructive interference fringe β_1, and dark fringe β_2

a) $\beta_1 = \beta_2$ b) $\beta_1 = 2\beta_2$ c) $2\beta_1 = \beta_2$ d) $\beta_1 + \beta_2 = 1$

93. which is not unit of electric field ~~or~~ intensity?

a) $V m^{-1}$. b) $N C^{-1}$ c) wb d) dyne/esu.

94. Area of surface of a spherical conductor $100 cm^2$, charge given 20c, ~~find~~ what is the surface charge density on inner surface —

a) $5 C m^{-2}$ b) $0.2 cm^{-2}$ c) zero d) $20 C m^{-2}$

95. Relation between SI and esu unit are Farad and statfarad respectively, relation between them —

a) $1 F = 3 \times 10^{11}$ st F. b) $1 F = 3 \times 10^{10}$ st F.
c) $1 F = 9 \times 10^{11}$ st F. d) $1 F = 9 \times 10^{9}$ st F.

96. 9 condensers of ~~9~~ 9 μF each connected in parallel what is equivalent capacitance of the combination —

a) 81 μF b) 9 μF c) 1 μF d) none.

97. two point charge $+4q$ and $-4q$ at 30cm distance. The point on join line the electric field intensity is zero —

a) 15cm from $4q$ b) 20cm from $4q$ c) 7.5cm from q
d) 5cm from q.

98. ~~Electric permittivity~~ Dielectric constant of metal —

a) zero b) 1 b) ∞ d) >1

99. Capacitance of a spherical conductor of radius 10m —

a) 9×10^{10} F b) $\frac{1}{9\times10^{9}}$ F c) 10F d) 10 st. Farad.

100. Force between two point charges at r distance is F. If the system taken in another medium at $\frac{r}{2}$ separation the force is also F. The dielectric constant of that medium —

a) 16 b) 8 c) 2 d) 4.

101. ratio of radii of two spherical conductors 1:2, the surface charge density are same. the ratio of the charges —

a) 1:2 b) 2:1 c) 1:4 d) 4:1

102. The capacitance of a parallel plate capacitor does not depend —

a) distance between the plates b) Area of plates

c) potential difference of plates d) medium between the plates.

103. Two spheres, one solid and another hollow of same radius are charge on same potential. then —

a) hollow sphere hey more charge b) only on hollow sphere have charge.

c) equal charge on both d) solid sphere hey more charge.

104. Electric flux is maximum for a surface, if ~~lines of~~ electric lines of force make angle with normal to the plane —

a) 45° b) 90° c) 0° d) 135°

105. Peak value of 220 volt AC potential —

a) 200V b) 220V c) 331V d) 440V.

106. mass of a ~~matter~~ body when given +ve charge —

a) decreases b) increases c) may increase or decrease

d) unchanged.

107. Dimension of electric permittivity —

a) $M^{-1}L^{-2}I^{2}$ b) $M^{-1}L^{-3}T^{4}I^{2}$ c) $ML^{-3}T^{-4}I^{-2}$ d) $ML^{-3}I^{2}$

108. Two spheres of radii r_1 and r_2 are connected by a conductor wire and total Q charge given. Common potential of the system —

a) $\frac{Q}{r_1+r_2}$ b) $Q(r_1+r_2)$ c) $\frac{2Q}{r_1+r_2}$ d) $\frac{r_1+r_2}{2Q_1}$

109. Minor current carrier in a p-type semiconductor —

a) ~~electron~~ positron b) Proton c) electron d) hole.

110. Among X-ray, γ-ray, visible light, and U V rays which have ~~the~~ largest wave length —

a) X-ray b) γ-ray c) visible d) U.V.

111. Ratio of energy in 1st and 2nd excited states of H_2 atom —

a) 4:1 b) 1:4 c) 1:1 d) 9:4

112. Photo electric threshold frequency of a metal of 1eV work function —

a) 2.4×10^{12} Hz b) 2.4×10^{14} Hz c) 2.4×10^{13} Hz d) 2.4×10^{15} H

113. An ~~electron~~ proton of charge 'e' enters in an uniform magnetic field B, with velocity v ~~and~~, making angle θ. Force on the charge particle —

a) BeV b) 0 c) BeV sinθ d) BeV cosθ

114) For Hydrogen spectra when electron comes on ~~1st~~ $n=1$ from $n=2,3,4\cdots$, the spectra formed is called —

a) Limen series b) Balmer c) Paschen d) Bracket

115. Resistance in a p-n diode in forward bias —

a) ∞ b) some ohm c) some K-ohm d) 0

116. A photon of energy 6 ev incident on a metal plate, the maximum KE of photoelectron 4 eV. Value of stopping potential

a) 2 b) 4 c) 6 d) 10

117. Thickness of depletion region for increase of dopping in p-n junction —

a) increases b) decreases c) both happened d) same.

118. Binary of the decimal number 0.0625 —

a) $(0.01)_2$ b) $(0.001)_2$ c) $(0.0001)_2$ d) (0.00001)

119. Semiconductor among — P, As, Al and Ge.

a) P b) As c) Al d) Ge.

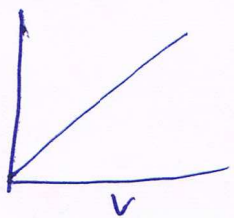
120. Equivalent mass of photon of wavelength λ —

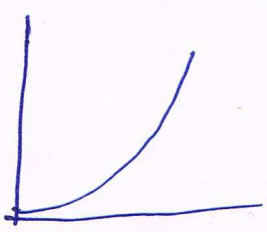
a) zero b) $\frac{h}{c\lambda}$ c) $\frac{h\lambda}{c}$ d) $\frac{hc}{\lambda}$.

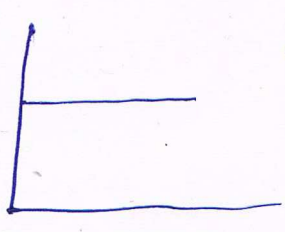
121. which is not electromagnet phenomenon?

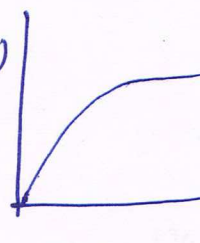
a) Cosmic ray b) γ-ray c) β-ray d) x-ray.

122. Characteristic graph of forward bias of p-n junction

a) 

b) 

c) 

d) 

123. value in binary form for 47 —

a) 101100 b) 101101 c) 101110 d) 101111

124. KE of of photo electron depends on —

a) intensity b) frequency c) medium d) number of electron emitted

125. For pure semiconductor ~~difference~~ energy gap between the conduction band and valence band —

a) 0 b) 1 ev c) 10 eV d) 100 eV.

126. Opposite process of photo electric effect —

a) Compton effect b) interference c) polarization d) All.

127. Maximum de Broglie wave length of particle having same velocity —

a) α-particle b) β-particle c) Proton d) Neutron.

128. According to Bohr's theory which quantity is quantized

a) vel. of electron b) ~~me~~ momentum of electron c) moment of momentum of electron d) energy of electron.

129. Einstein's equation of photo electric effect —

a) $E_{max} + h\nu = W_0$ b) $\frac{1}{2} m v_{max}^2 + W_0 = h\nu$

c) $E_{max} = h\nu + W_0$ d) $e V_0 + h\nu = W_0$

130. Ratio of max. and minimum wave length of Lyman series

a) 4:3 b) 9:5 c) 17:6 d) 25:9

131.