SRI GURUGNANA SAMBANDAR MISSION

SRI MUTHAIAH MATRIC HR SEC SCHOOL

VAITHEESWARANKOIL.

XII-STD PHYSICS BOOK BACK ONE MARK QUESTIONS

UNIT-1

1. A glass rod rubbed with silk acquires a charge of $+8 \times 10-12C$. The number of electrons it has gained or lost
   (a) 5×10^{-7} (gained) (b) 5×10^{7} (lost) (c) 2×10^{-8} (lost) (d) -8×10^{-12} (lost)
2. The electrostatic force between two point charges kept at a distance d apart, in a medium $\varepsilon r = 6$ is 0.3 N. Theforce between them at the same separation in vacuum is
   (a) 20 N (b) 0.5 N (c) 1.8 N (d) 2 N
3. Electic field intensity is $400\ V\ m^{-1}$ at a distance of 2 m from a point charge. It will be $100\ V\ m^{-1}$ at a distance?
   (a) 50 cm (b) 4 cm (c) 4 m (d) 1.5 m
4. Two point charges +4q and +q are placed 30 cm apart. At what point on the line joining them the electric field is zero?
   (a) 15 cm from the charge q (b) 7.5 cm from the charge q
   (c) 20 cm from the charge 4q (d) 5 cm from the charge q
5. A dipole is placed in a uniform electric field with its axis parallel to the field. It experiences
   (a) only a net force (b) only a torque
   (c) both a net force and torque (d) neither a net force nor a torque
6. If a point lies at a distance x from the midpoint of the dipole, the electric potential at this point is proportional to
   (a) $1/x^2$ (b) $1/x^3$ (c) $1/x^4$ (d) $1/x^{3/2}$
7. Four charges +q, +q, −q and −q respectively are placed at the corners A, B, C and D of a square of side a. The electric potential at the centre O of the square is
   (a) $q/4\pi\varepsilon_o a$ (b) $2q/4\pi\varepsilon_o a$ (c) $4q/4\pi\varepsilon_o a$ (d) zero
8. Electric potential energy (U) of two point charges is
   (a) $q_1q_2/4\pi\varepsilon_0 r^2$ (b) $q_1q_2/4\pi\varepsilon_0 r$ (c) $pE\cos\theta$ (d) $pE\sin\theta$
9. The work done in moving 500 μC charge between two points on equipotential surface is
   (a) zero (b) finite positive (c) finite negative (d) infinite
10. Which of the following quantities is scalar?
    (a) dipole moment (b) electric force (c) electric field (d) electric potential
11. The unit of permittivity is
    (a) $C^2 N^{-1} m^{-2}$ (b) $N m^2 C^{-2}$ (c) $H m^{-1}$ (d) $N C^{-2} m^{-2}$
12. The number of electric lines of force originating from a charge of 1 C is
    (a) 1.129×10^{11} (b) 1.6×10^{-19} (c) 6.25×10^{18} (d) 8.85×10^{12}

13. The electric field outside the plates of two oppositely charged plane sheets of charge density σ is
(a) $\sigma/2\varepsilon_0$ (b) $-\sigma/2\varepsilon_0$ (c) σ/ε_0 (d) zero
14. The capacitance of a parallel plate capacitor increases from 5 μf to 60 μf when a dielectric is filled between the plates. The dielectric constant of the dielectric is
(a) 65 (b) 55 (c) 12 (d) 10
15. A hollow metal ball carrying an electric charge produces no electric field at points
(a) outside the sphere (b) on its surface (c) inside the sphere
(d) at a distance more than twice

UNIT-2

16. A charge of 60 C passes through an electric lamp in 2 minutes. Then the current in the lamp is
(a) 30 A (b) 1 A (c) 0.5 A (d) 5 A
17. The material through which electric charge can flow easily is
(a) quartz (b) mica (c) germanium (d) copper
18. The current flowing in a conductor is proportional to
(a) drift velocity (b) 1/ area of cross section (c) 1/no of electrons
(d) square of area of cross section.
19. A toaster operating at 240V has a resistance of 120Ω. The power is
(a) 400 W (b) 2 W (c) 480 W (d) 240 W
20. If the length of a copper wire has a certain resistance R, then on doubling the length its specific resistance
(a) will be doubled (b) will become 1/4th
(c) will become 4 times (d) will remain the same.
21. When two 2Ω resistances are in parallel, the effective resistance is
(a) 2 Ω (b) 4 Ω (c) 1 Ω (d) 0.5 Ω
22. In the case of insulators, as the temperature decreases, resistivity
(a) decreases (b) increases (c) remains constant (d) become szero
23. If the resistance of a coil is 2 Ω at 0oc and α = 0.004 /oC, then its resistance at 100o C is
(a) 1.4 Ω (b) 0 Ω (c) 4 Ω (d) 2.8 Ω
24. According to Faraday's law of electrolysis, when a current is passed, the mass of ions deposited at the cathode is independent of
(a) current (b) charge (c) time (d) resistance
25. When n resistors of equa l resistances (R) are connected in series, the effective resistance is
(a) n/R (b) R/n (c) 1/nR (d) nR

UNIT-3

26. Joule's law of heating is
(a) $H = I^2Rt$ (b) $H = V^2 Rt$ (c) $H = VIt$ (d) $H = IR^2t$

27. Nichrome wire is used as the heating element because it has
(a) low specific resistance (b) low melting point
(c) high specific resistance (d) high conductivity

28. Peltier coefficient at a junction of a thermocouple depends on
(a) the current in the thermocouple (b) the time for which current flows
(c) the temperature of the junction (d) the charge that passes through the thermocouple

29. In a thermocouple, the temperature of the cold junction is 20oC, the neutral temperature is 270^oC. The temperature of inversion is
(a) 520^oC (b) 540^oC (c) 500^oC (d) 510^oC

30. Which of the following equations represents Biot-savart law?
(a) $dB = \frac{\mu_0}{4\pi}\frac{Idl}{r2}$ (b) $dB = \frac{\mu_0}{4\pi}\frac{Idl\sin\theta}{r2}$ (c) $dB = \frac{\mu_0}{4\pi}\frac{IdlXr}{r2}$ (d) $dB = \frac{\mu_0}{4\pi}\frac{IdlXr}{r3}$

31. Magnetic induction due to an infinitely long straight conductor placed in a medium of permeability μ is
(a) $\frac{\mu_0 I}{4\pi a}$ (b) $\frac{\mu_0 I}{2\pi a}$ (c) $\frac{\mu I}{4\pi a}$ (d) $\frac{\mu I}{2\pi a}$

32. In a tangent galvanometer, for a constant current, the deflection is 30o. The plane of the coil is rotated through 900. Now, for the same current, the deflection will be
(a) 30^0 (b) 60^0 (c) 90^0 (d) 0^0

33. The period of revolution of a charged particle inside a cyclotron does not depend on
(a) the magnetic induction (b) the charge of the particle
(c) the velocity of the particle (d) the mass of the particle

34. The torque on a rectangular coil placed in a uniform magnetic field is large, when
(a) the number of turns is large (b) the number of turns is less
(c) the plane of the coil is perpendicular to the field
(d) the area of the coil is small

35. Phosphor – bronze wire is used for suspension in a moving coil galvanometer, because it has
(a) high conductivity (b) high resistivity
(c) large couple per unit twist (d) small couple per unit twist

36. Of the following devices, which has small resistance?
(a) moving coil galvanometer (b) ammeter of range 0 – 1A
(c) ammeter of range 0–10 A (d) voltmeter

37. A galvanometer of resistance G Ω is shunted with S Ω .The effective resistance of the combination is Ra. Then, which of the following statements is true?
(a) G is less than S (b) S is less than Ra but greater than G.
(c) Ra is less than both G and S (d) S is less than both G and Ra

38. An ideal voltmeter has
(a) zero resistance (b) finite resistance less than G but greater than Zero
(c) resistance greater than G but less than infinity (d) infinite resistance

UNIT-4

39. Electromagnetic induction is not used in
(a) transformer (b) room heater (c) AC generator (d) choke coil

40. A coil of area of cross section $0.5\ m^2$ with10 turns is in a plane which I spendendicular to an uniform magnetic field of $0.2\ Wb/m^2$.The flux though the coil is
(a) 100 Wb (b) 10 Wb (c) 1 Wb (d) zero

41. Lenz's law is in accordance with the law of
(a) conservation of charges (b) conservation of flux
(c) conservation of momentum (d) conservation of energy

42. The self–inductance of a straight conductor is
(a) zero (b) infinity (c) very large (d) very small

43. The unit henry can also be written as
(a) $Vs\ A^{-1}$ (b) $Wb\ A^{-1}$ (c) $\Omega\ s$ (d) all

44. An emf of 12 V is induced when the current in the coil changes at the rate of $40A\ S^{-1}$. The coefficient of self induction of the coil is
(a) 0.3 H (b) 0.003 H (c) 30 H (d) 4.8 H

45. A DC of 5A produces the same heating effect as an AC of
(a) 50 A rms current (b) 5 A peak current (c) 5A rms current (d) none of these

46. Transformer works on
(a) AC only (b) DC only (c) both AC and DC (d) AC more effectively than DC

47. The part of the AC generator that passes the current from the coil to the external circuit is
(a) field magnet (b) split rings (c) slip rings (d) brushes

48. In an AC circuit the applied emf $e = E_o \sin(\omega t + \pi/2)$ leads the current $I = I_o \sin(\omega t - \pi/2)$ by
(a) $\pi/2$ (b) $\pi/4$ (c) π (d) 0

49. Which of the following cannot be stepped up in a transformer?
(a) input current (b) input voltage (c) input power (d) all

50. The power loss is less in transmission lines when
(a) voltage is less but current is more (b) both voltage and current are more
(c) voltage is more but current is less (d) both voltage and current are less

51. Which of the following devices does not allow d.c. to pass through?
(a) resistor (b) capacitor (c) inductor (d) all the above

52. In an ac circuit
(a) the average value of current is zero (b) the average value of square of current is zero.
(c) the average power dissipation is zero. (d) the rms current is $\sqrt{2}$ time of peak current.

UNIT-5

53. In an electromagnetic wave
    (a) power is equally transferred along the electric and magnetic fields
    (b) power is transmitted in a direction perpendicular to both the fields
    (c) power is transmitted along electric field
    (d) power is transmitted along magnetic field
54. Electromagnetic waves are
    (a) transverse (b) longitudinal
    (c) may be longitudinal or transverse (d) neither longitudinal nor transverse
55. Refractive index of glass is 1.5. Time taken for light to pass through a glass plate of thickness 10 cm is
    (a) 2×10^{-8} s (b) 2×10^{-10} s (c) 5×10^{-8} s (d) 5×10^{-10} s
56. In an electromagnetic wave the phase difference between electric field E and magneticfield B is
    (a) $\pi/4$ (b) $\pi/2$ (c) π (d) zero
57. Atomic spectrum should be
    (a) pure line spectrum (b) emission band spectrum
    (c) absorption line spectrum (d) absorption band spectrum.
58. When a drop of water is introduced between the glass plate and plano convex lens in Newton's rings system, the ring system
    (a) contracts (b) expands (c) remains same (d) first expands, then contracts
59. A beam of monochromatic light enters from vacuum into a medium of refractive index μ. The ratio of the wavelengths of the incident and refracted waves is
    (a) $\mu : 1$ (b) $1 : \mu$ (c) $\mu^2 : 1$ (d) $1 : \mu^2$
60. I f th e wavelength of the ligh t is reduced to one fourth, then the amount of scattering is
    (a) increased by 16 times (b) decreased by 16 times
    (c) increased by 256 times (d) decreased by 256 times
61. In Newton's ring experiment the radii of the mth and (m + 4)th dark rings are respectively 5 mm and 7 mm. What is the value of m?
    (a) 2 (b) 4 (c) 8 (d) 10
62. The path difference between two monochromatic light waves of wavelength 4000 Å is 2×10^{-7} m. The phase difference between them is
    (a) π (b) 2π (c) 32π (d) $\pi/2$
63. In Young's experiment, the third bright band for wavelength of light 6000 Å coincides with the fourth bright band for another source in the same arrangement. The wave length of the another source is
    (a) 4500 Å (b) 6000 Å (c) 5000 Å (d) 4000 Å

64. A light of wavelength 6000 Å is incident normally on a grating 0.005 m wide with 2500 lines. Then the maximum order is
(a) 3 (b) 2 (c) 1 (d) 4

65. A diffraction pattern is obtained using a beam of red light. What happens if th red light is replaced by blue light?
(a) bands disappear (b) no change
(c) diffraction pattern becomes narrower and crowded together
(d) diffraction pattern becomes broader and farther apart

66. The refractive index of the medium, for the polarising angle 60o is
(a) 1.732 (b) 1.414 (c) 1.5 (d) 1.468

UNIT-6

67. The cathode rays are
(a) a stream of electrons (b) a stream of positive ions
(c) a stream of uncharged particles (d) the same as canal rays

68. A narrow electron beam passes undeviated through an electric field E = 3 × 104 V/m and an overlapping magnetic field B = 2×10−3 Wb/m². The electron motion, electric field and magnetic field are mutually perpendicular. The speed of the electron is
(a) 60 ms^{-1} (b) 10.3 × 10^7 ms^{-1} (c) 1.5 × 10^7 ms^{-1} (d) 0.67 × 10^{-7} ms^{-1}

69. According to Bohr's postulates, which of the following quantities take discrete values?
(a) kinetic energy (b) potential energy (c) angular momentum (d) momentum

70. The ratio of the radii of the first three Bohr orbit is,
(a) 1 : 1/2 : 1/3 (b) 1 : 2 : 3 (c) 1 : 4 : 9 (d) 1 : 8 : 27

71. The first excitation potential energy or the minimum energy required to excite the atom from ground state of hydrogen atom is,
(a) 13.6 eV (b) 10.2eV (c) 3.4 eV (d) 1.89 eV

72. According to Rutherford atom model, the spectral lines emitted by an atom is,
(a) line spectrum (b) continuous spectrum
(c) continuous absorption specturm (d) band spectrum

73. Energy levels A, B, C of a certain atom correspond to increasing values of energy (i.e.,) EA < EB < EC. If λ1, λ2, λ3 are the wavelengths of radiations corresponding to The transitions C to B, B to A and C to A respectively, which of the following statements is correct.
(a) $\lambda_3 = \lambda_1 + \lambda_2$ (b) $\lambda_3 = \lambda_1\lambda_2/\lambda_1+\lambda_2$ (c) $\lambda_1 = \lambda_2 + \lambda_3 = 0$ (d) $\lambda^2_3 = \lambda^2_1 + \lambda^2_2$

74. The elliptical orbits of electron in the atom were proposed by
(a) J.J.Thomson (b) Bohr (c) Sommerfeld (d) de Broglie

75. X–ray is
(a) phenomenon of conversion of kinetic energy into radiation.
(b) conversion of momentum (c) conversion of energy into mass
(d) principle of conservation of charge

76. In an X-ray tube, the intensity of the emitted X–ray beam is increased by
(a) increasing the filament current (b) decreasing the filament current
(c) increasing the target potential (d) decreasing the target potential

77. The energy of a photon of characteristic X-ray from a Coolidge tube comes from
(a) the kinetic energy of the free electrons of the target
(b) the kinetic energy of ions of the target
(c) the kinetic energy of the striking electron
(d) an atomic transition in the target.

78. A Coolidg e tube operates at 24800 V. The maximum frequency of Xradiation emitted from Coolidge tube is
(a) 6×10^{18} Hz (b) 3×10^{18} Hz (c) 6×10^{8} Hz (d) 3×10^{8} Hz

79. In hydrogen atom, which of the following transitions produce a spectral line of maximum wavelengt
(a) 2 --> 1 (b) 4 --> 1 (c) 6 --> 5 (d) 5 -->2

80. In hydrogen atom, which of the following transitions produce a spectral line of maximum frequency
(a) 2 --> 1 (b) 6 --> 2 (c) 4 --> 3 (d) 5 -->2

81. After pumping process in laser,
(a) the number of atoms in the ground state is greater than the number of atoms in the excited state.
(b) the number of atoms in the excited state is greater than the number of atoms in the ground state.
(c) the number of atoms in the ground state is equal to the number atoms in the excited state.
(d) No atoms are available in the excited state.

82.The chromium ions doped in the ruby rod
(a) absorbs red light (b) absorbs green ligh (c) absorbs blue light (d) emits green light

UNIT-7

83. A photon of frequency ν is incident on a metal surface of threshold frequency νo. The kinetic energy of the emitted photoelectron is
(a) $h(\nu - \nu_o)$ (b) $h\nu$ (c) $h\nu_o$ (d) $h(\nu + \nu_o)$

84. The work function of a photoelectric material is 3.3 eV. The threshold frequency will be equal to
(a) 8×10^{14} Hz (b) 8×10^{10} Hz (c) 5×10^{20} Hz (d) 4×10^{14} Hz.

85. The stopping potential of a metal surface is independent of
(a) frequency of incident radiation (b) intensity of incident radiation
(c) the nature of the metal surface (d) velocity of the electrons emitted.

86. At the threshold frequency, the velocity of the electrons is
(a) zero (b) maximum (c) minimum (d) infinite

87. The photoelectric effect can be explained on the basis of
(a) corpuscular theory of light (b) wave theory of light
(c) electromagnetic theory of light (d) quantum theory of light

88. The wavelength of the matter wave is independent of
(a) mass (b) velocity (c) momentum (d) charge

89. If the kinetic energy of the moving particle is E, then the de Broglie wavelength is,
(a) $\lambda = h/\sqrt{2mE}$ (b) $\lambda = \sqrt{2mE}/h$ (c) $\lambda = h\sqrt{2mE}$ (d) $\lambda = h/E\sqrt{2m}$

90. The momentum of the electron having wavelength 2Å is
(a) 3.3×10^{24} kg m s^{-1} (b) 6.6×10^{24} kg m s^{-1}
(c) 3.3×10^{-24} kg m s^{-1} (d) 6.6×10^{-24} kg m s^{-1}

91. According to relativity, the length of a rod in motion
(a) is same as its rest length (b) is more than its rest length
(c) is less than its rest length
(d) may be more or less than or equal to rest length depending on the speed of the rod

UNIT-8

92. If 1 kg of a substance is fully converted into energy, then the energy produced is
(a) 9×10^{16} J (b) 9×10^{24} J (c) 1 J (d) 3×10^{8} J

93. The nuclear radius of 4Be8 nucleus is
(a) 1.3×10^{-15} m (b) 2.6×10^{-15} m (c) 1.3×10^{-13} m (d) 2.6×10^{-13} m

94. The nuclei $_{13}Al^{27}$ and $_{14}Si^{28}$ are example of
(a) isotopes (b) isobars (c) isotones (d) isomers

95. The mass defect of a certain nucleus is found to be 0.03 amu. Its binding energy is
(a) 27.93 eV (b) 27.93 KeV (c) 27.93 MeV (d) 27.93 GeV

96. Nuclear fission can be explained by
(a) shell model (b) liquid drop model (c) quark model (d) Bohr atom model

97. The nucleons in a nucleus are attracted by
(a) gravitational force (b) electrostatic force (c) nuclear force (d) magnetic force

98. The ionisation power is maximum for
(a) neutrons (b) α – particles (c) γ – rays (d) β – particles

99. The half life period of a certain radioactive element with disintegration constant 0.0693 per day is
(a) 10 days (b) 14 days (c) 140 days (d) 1.4 days

100. The radio-isotope used in agriculture is
(a) $_{15}P^{31}$ (b) $_{15}P^{32}$ (c) $_{11}Na^{23}$ (d) $_{11}Na^{24}$

101. The average energy released per fission is
(a) 200 eV (b) 200 MeV (c) 200 meV (d) 200 GeV

102. The explosion of atom bomb is based on the principle of
(a) uncontrolled fission reaction (b) controlled fission reaction
(c) fusion reaction (d) thermonuclear reaction

103. Anaemia can be diagnosed by
(a) $_{15}P^{31}$ (b) $_{15}P^{32}$ (c) $_{26}Fe^{59}$ (d) $_{11}Na^{24}$

104. In the nuclear reaction $_{80}Hg^{198} + X \rightarrow {}_{79}Au^{198} + {}_{1}H^{1}$, X-stands for
(a) proton (b) electron (c) neutron (d) deutron

105. In β – decay
(a) atomic number decreases by one (b) mass number decreases by one
(c) proton number remains the same (d) neutron number decreases by one

106. Isotopes have
(a) same mass number but different atomic number
(b) same proton number and neutron number
(c) same proton number but different neutron number
(d) same neutron number but different proton number

107. The time taken by the radioactive element to reduce to 1/e times is
(a) half life (b) mean life (c) half life/2 (d) twice the mean life

108. The half life period of N^{13} is 10.1 minute. Its life time is
(a) 5.05 minutes (b) 20.2 minutes (c)1/0.6931minutes (d) infinity

109. Positive rays of the same element produce two different traces in a Bainbridge mass spectrometer. The positive ions have
(a) same mass with different velocity (b) same mass with same velocity
(c) different mass with same velocity (d) different mass with different velocity

110. The binding energy of 26Fe56 nucleus is
(a) 8.8 MeV (b) 88 MeV (c) 493 MeV (d) 41.3 MeV

111. The ratio of nuclear density to the density of mercury is about
(a) 1.3×10^{10} (b) 1.3 (c) 1.3×10^{13} (d) 1.3×10^{4}

UNIT-9

112. The electrons in the atom of an element which determine its chemical and electrical properties are called
(a) valence electrons (b) revolving electrons
(c) excess electrons (d) active electrons

113. In an N–type semiconductor, there are
(a) immobile negative ions (b) no minority carriers
(c) immobile positive ions (d) holes as majority carriers

114. The reverse saturation current in a PN junction diode is only due to
(a) majority carriers (b) minority carriers (c) acceptor ions (d) donor ions

115. In the forward bias characteristic curve, a diode appears as

(a) a high resistance (b) a capacitor (c) an OFF switch (d) an ON switch

116. Avalanche breakdown is primarily dependent on the phenomenon of

(a) collision (b) ionization (c) doping (d) recombination

117. The colour of light emitted by a LED depends on

(a) its reverse bias (b) the amount of forward current

(c) its forward bias (d) type of semiconductor material

118. The emitter base junction of a given transistor is forward biased and its collector –base junction is reverse biased. If the base current is increased, then its

(a) V_{CE} will increase (b) I_C will decrease (c) I_C will increase (d) V_{CC} will increase.

119. Improper biasing of a transistor circuit produces

(a) heavy loading of emitter current (b) distortion in the output signal

(c) excessive heat at collector terminal (d) faulty location of load line

120. An oscillator is

(a) an amplifier with feedback (b) a convertor of ac to dc energy

(c) nothing but an amplifier (d) an amplifier without feedback

121. In a Colpitt's oscillator circuit

(a) capacitive feedback is used (b) tapped coil is used

(c) no tuned LC circuit is used (d) no capacitor is used

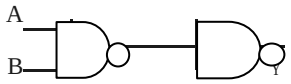
122. Since the input impedance of an ideal operational amplifier is infinite,

(a) its input current is zero (b) its output resistance is high

(c) its output voltage becomes independent of load resistance

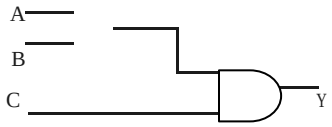
(d) it becomes a current controlled device

123. The following arrangement performs the logic function of _____gate



(a) AND (b) OR (c) NAND (d) EXOR

124. If the output (Y) of the following circuit is 1, the inputs A B C must be



(a) 0 1 0 (b) 1 0 0 (c) 1 0 1 (d) 1 1 0

125. According to the laws of Boolean algebra, the expression (A + AB) is equal to

(a) A (b) AB (c) B (d) $\bar{A}$

126. The Boolean expression ABC can be simplified as

(a) AB + C (b) A . B . C (c) AB + BC + CA (d) A + B + C

UNIT-10

127. High frequency waves follow
(a) the ground wave propagation (b) the line of sight direction
(c) ionospheric propagation (d) the curvature of the earth

128. The main purpose of modulation is to
(a) combine two waves of different frequencies
(b) transmit low frequency information over long distances efficiently
(c) acquire wave shaping of the carrier wave (d) produce side bands

129. In amplitude modulation
(a) the amplitude of the carrier wave varies in accordance with the amplitude of the modulating signal.
(b) the amplitude of the carrier wave remains constant
(c) the amplitude of the carrier varies in accordance with the frequency of the modulating signal
(d) modulating frequency lies in the audio range

130. In amplitude modulation, the band width is
(a) equal to the signal frequency (b) twice the signal frequency
(c) thrice the signal frequency (d) four times the signal frequency

131. In phase modulation
(a) only the phase of the carrier wave varies
(b) only the frequency of the carrier wave varies.
(c) both the phase and the frequency of the carrier wave varies.
(d) there is no change in the frequency and phase of the carrier wave

132. The RF channel in a radio transmitter produces
(a) audio signals (b) high frequency carrier waves
(c) both audio signal and high frequency carrier waves
(d) low frequency carrier waves.

133. The purpose of dividing each frame into two fields so as to transmit 50 views of the picture per second is
(a) to avoid flicker in the picture (d) to avoid unwanted noises in the signals
(b) the fact that handling of higher frequencies is easier
(c) that 50 Hz is the power line frequency in India

134. Printed documents to be transmitted by fax are converted into electrical signals by the process of
(a) reflection (b) scanning (c) modulation (d) light variation

----------(***ALL THE BEST***)----------