ECAT Physics Online Test

Sr	Questions	Answers Choice
1	The electric field intensity at a point due to a point charge	A. Falls off inversely as the distance B. Falls off inversely as the square of distance C. Remains unchanged with distance D. Increase directly as square of distance
2	If the formula PV = nRT, n denotes:	A. Number of molecules per unit volume B. Number of moles C. Number of molecules D. None of these
3	When an electron enters in a magnetic field right angle to its motion, the magnitude of its velocity will be	A. changed B. zero C. unchanged D. none of these
4	The electric field due to an infinite long thin wire at a distance R varies as	A. 1/R B. 1/R² C. R D. R²
5	Most OP-AMP operates with	A. <u>+</u> 6 V supply B. <u>+</u> 10 V supply C. <u>+</u> 12 V supply D. <u>+</u> 24 V supply
6	Conversion of chemical energy to electrical energy can be achieved by:	A. <p class="MsoNormal" style="text-align:justify">Primary cell<o:p></o:p></p> B. <p class="MsoNormal" style="text-align:justify">Secondary cell<o:p></o:p></p> C. <p class="MsoNormal" style="text-align:justify">Both (A) and (B) <o:p></o:p></p> D. <p class="MsoNormal" style="text-align:justify">Photovoltaic cell<o:p></o:p></p> E. <p class="MsoNormal" style="text-align:justify">Solar cell<o:p></o:p></p>
7	Alfa , beta and gamma rays are emitted from a radio-active substance	A. spontaneously B. when it is heated C. when it is exposed to light D. When it interacts with the other particle
8	Electromagnetic -radiation means:	A. Photons B. protons C. Electrons D. Mesons E. None of these
9	A diode characteristic curve is a plot between	A. current and time B. voltage and time C. voltage and current D. forward voltage and reversed voltage
10	At a given instant, a photon moves in +x direction in a region where there magnetic field in -z direction. The magnetic force on the proton will be the:	A. -y direction B. +y direction C. +z direction D. -z direction E. None of these
		A. 11/3 A

11	A 60 W bulb operates on 220 V supply. The current flowing through the bulb is	B. 3 A C. 3/11 A D. 6
12	Glass is an example of	A. crystalline solid B. amorphous solid C. polymeric solid D. none of them
13	With the propagation of a longitudinal wave through a material medium, the quantities transmitted in the propagation direction are	A. Energy, momentum and mass B. Energy C. Energy and mass D. Energy and linear momentum
14	When a horse pulls a cart, the force that makes the horse run forward is the force exerted by	A. The horse on the ground B. The horse on the cart C. The ground on the horse D. The ground on the cart
15	The device in which induced emf is statically induced emf is:	A. Transformer B. AC generator C. Alternator D. Dynamo
16	In which of the following diodes when an electron combines with a hole during the forward biasing, photon of visible light is emitted.	A. photo diode B. light emitting diode C. photo voltaic cell D. all of them
17	Magnetic flux passing through a element whose vector area makes an angle0^o with lines of magnetic force is:	A. BACosΘ<p class="MsoNormal" style="text-align:justify"><o:p></o:p></p> B. Zero C. BA D. BA sinΘ E. None of these
18	The SI unit of magnetic flux is	A. NmA⁻² B. NmA⁻¹ C. NAm⁻¹ D. Nm²A⁻¹
19	If the water falls from a dam into a turbine wheel 19.6 m below, then the velocity of water at the turbine, is (Take g=9.8 m/s^2)	A. 9.8 m/s B. 19.6 m/s C. 39.2 m/s D. 98.0 m/s
20	The motion in a plane is the motion in	A. one dimension B. two dimension C. three dimension D. four dimension