ECAT Physics Chapter 12 Electrostatics

Sr	Questions	Answers Choice
1	If the two charges in Coulomb's law have double distance between them, then electric force	A. Becomes two-fold B. Becomes four-fold C. Remains the same D. None of these
2	A condenser of capacity 50μF is charged to 10 V.The energy stored is	A. 1.25 x 10⁻³J B. 3.75 x 10⁻³J C. 2.5 x 10⁻³J D. 5 x 10⁻³J
3	The relation between the charge Q of a parallel plate capacitor and the P.D between its plates is	A. Q=V/C B. Q=C/V C. Q=1/2CV D. Q=CV
4	Force acting upon a charged particle kept between the plates of a charged condenser if F. IF one of the plates of the condenser is removed, force acting on the same will become	A. Zero B. F/2 C. F D. 2F
5	Ohm's law states that	A. The current through a resistor is directly proportional to the applied voltage B. The voltage across a resistor is directly proportional to the current passing through it C. Resistance is the constant of proportionality between the voltage and current D. all of these
6	An electric charge at rest is	A. Only an electric field B. Only a magnetic field C. Both electric and magnetic fields D. None of the above
7	In RC series circuit the time during which the capacitor acquires 0.63 times the equilibrium charge is called	A. Time constant B. Decay constant C. None of these D. All of above
8	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
9	Some charge is being given to a conductor. Then its potential	A. Is maximum at surface B. Is maximum at centre C. Is remain same throughout the conductor D. Is maximum somewhere between surface and centre
10	In case of a parallel plate capacitor if the plate separation is doubled and plate area is halved, the capacitance becomes	A. Four-fold B. One-half C. One-fourth D. Zero
11	The unit of resistance is	A. volt B. ampere C. ohm D. coat
12	Cause of heat production in a current carrying conductor is	A. Collisions of free electrons with one another B. High drift speed of free electrons C. Collisions of free electrons with atoms or ions of conductor D. High resistance value
13	Solar cell converts sunlight directly into	A. potential energy B. thermal energy C. mechanical energy

		D. electrical energy
14	A parallel plate capacitor is first charged and then a dielectric slab is introduced between the plates. The quantity that remains unchanged is	A. Charge Q B. Potential V C. Capacity D. Energy U
15	Electric potential of earth is taken to be zero because the earth is good	A. Semiconductor B. Conductor C. Insulator D. Dielectric
16	The potential difference across the conductors should be maintained constant by connecting the ends of wire to the terminal of a device called a source of	A. power B. current C. resistance D. temperature
17	An electric dipole is at the centre of a hollow sphere of radius r. The total normal electric flux through the sphere is (here Q is the charge and d is the distance between the two charges of the dipole)	A. Q/4πr² B. 2Q/4πr² C. Q.d D. Zero
18	10^6electrons are moving through a wire per second, the current developed is	A. 1.6 x 10⁻¹⁹ B. 1 A C. 1.6 x 10⁻¹⁵A D. 10⁶A
19	If 2.2 kilowatt power is transmitted through 1 10 ohm line at 22000 volt, the power loss in the form of heat will be	A. 0.1 watt B. 1 watt C. 10 watt D. 100 watt
20	The material in the form of wire or rod or plate which leads the current into or cut of the electrolyte is known as	A. voltmeters B. resistance C. electrode D. current