

ECAT Pre General Science Physics Chapter 12 Electrostatics Online Test

Sr	Questions	Answers Choice
1	A cube of metal is given a positive charge Q. For the above system, which of the following statements is true?	A. Electric potential at the surface of the cube is zero B. Electric potential within the cube is zero C. Electric filed is normal to the surface of the cube D. Electric filed varies within the cube
2	Three resistance 500,500 and 50 ohms are connected in series across 555 volts mains. The current flowing through them will be	A. 0.52 A B. 1 mA C. 0.7 mA D. 1.4 A
3	A condenser of capacity 50 μ F is charged to 10 V.The energy stored is	A. 1.25 x 10 ⁻³ J B. 3.75 x 10 ⁻³ J C. 2.5 x 10 ⁻³ J D. 5 x 10 ⁻³ J
4	The energy required to charge a capacitor of $5 \mu F$ by connecting D.C. source of 20 KV is	A. 10 KJ B. 5 KJ C. 2 KJ D. 1 KJ
5	A sheet of aluminium foil of negligible thickness is introduced between the plates of a capacitor. The capacitance of the capacitor	A. Increases B. Decreases C. Remain unchanged D. Becomes infinite
6	The charge per unit time through any cross-section of a conductor is called	A. capacitance B. electric power C. current D. potential difference
7	A wire of radius r has resistance R. If it is stretched to a wire of r/2 radius, then the resistance becomes	A. 2R B. 4R C. 16R D. Zero
8	Electron volt is the unit of	A. Potential difference B. Energy C. Resistance D. Capacitance
9	The potential difference across each resistance in series combination is	A. same B. different C. zero D. none of these
10	A closed surface contains two equal and opposite charges. The net electric flux from the surface will be	A. Negative B. Positive C. Infinite D. Zero
11	The dot product of electric field intensity E and vector area A is called	A. Electric potential B. Electric flux C. Electric field D. Magnetic field
12	One electron volt is equal to	A. 1.6 x 1019eV B. 6.25 x 1018 eV C. 1.6 x 1018 eV D. 6.25 x 1019eV
13	The charge carriers in gases are	A. electrons B. ions C. protons D. ions and electrons
14	Which one of the following is the unit of electric field intensity	A. JC ⁻¹ B. Vm ⁻¹ C. Cm ⁻¹ D. CJ ⁻¹
		A. Q = I/t

15	The relation between charge 'Q' and current 'l' is given by	B. Q = It C. Q = I ² t D. Q = I ² /t
16	The earth's potential is taken as	A. Negative B. Positive C. Zero D. Infinite
17	The statement "the electric force of repulsion or attraction between two point charges is directly proportional to the product of the charges and inversely proportional to square of the distance between them" refer to	A. Coulomb's law B. Gauss's law C. Biot-Sarwat law D. Ampere's law
18	Battery is charged in motor cars, which is based on	A. Chemical effect B. Magnetic effect C. Electric effect D. None
19	The SI unit of electric flux is	A. Weber B. Nm ² C ⁻¹ C. NmC ⁻¹ D. Nm ⁻² C
20	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