

## ECAT Physics Chapter 12 Electrostatics

Sr	Questions	Answers Choice
1	If the length of the conductor is double and its cross sectional area is halved, its conductance will	<p>A. Increase four fold</p> <p>B. Become one-fourth</p> <p>C. Become one-half</p> <p>D. Remains unchanged</p>
2	A cube of metal is given a positive charge Q. For the above system, which of the following statements is true?	<p>A. Electric potential at the surface of the cube is zero</p> <p>B. Electric potential within the cube is zero</p> <p>C. Electric field is normal to the surface of the cube</p> <p>D. Electric field varies within the cube</p>
3	Three resistors of resistance R each are combined in various ways. Which of the following cannot be obtained?	<p>A. <math>3R</math></p> <p>B. <math>\frac{2R}{4}</math></p> <p>C. <math>\frac{R}{3}</math></p> <p>D. <math>\frac{2R}{3}</math></p>
4	The capacitance of a parallel plate capacitor depends upon	<p>A. Area of the plates</p> <p>B. Separation between the plates</p> <p>C. Medium between the plates</p> <p>D. All of the above</p>
5	If two bulbs one of 60 W and other of 100 W are connected in parallel, then which one of the following will flow more?	<p>A. 60 W bulb</p> <p>B. 100 W bulb</p> <p>C. Both equally</p> <p>D. None of these</p>
6	In bringing an electron towards another electron, electrostatic potential energy of system	<p>A. Decreases</p> <p>B. Increases</p> <p>C. Remains unchanged</p> <p>D. Becomes zero</p>
7	A certain charge liberates 0.8 g of oxygen. The same charge will liberate. how many g of silver?	<p>A. 108 g</p> <p>B. 10.8 g</p> <p>C. 0.8 g</p> <p>D. 108/0.8 g</p>
8	Some charge is being given to a conductor. Then its potential	<p>A. Is maximum at surface</p> <p>B. Is maximum at centre</p> <p>C. Is remain same throughout the conductor</p> <p>D. Is maximum somewhere between surface and centre</p>
9	Specific resistance of a wire depends upon	<p>A. Length</p> <p>B. Cross-section area</p> <p>C. Mass</p> <p>D. None</p>
10	The SI unit of electric field intensity is	<p>A. <math>CN^{-1}</math></p> <p>B. <math>NC^{-1}</math> or <math>Vm^{-1}</math></p> <p>C. <math>JC^{-1}</math></p> <p>D. <math>AV^{-1}</math></p>

11	A wire is bent into a ring of radius R is given a charge q. The magnitude of the electrical field at the centre of the ring is	A. Two B. 1/2 C. Zero D. 3/2
12	A 100 W, 200 V bulb is connected to a 160 volts supply. The actual power consumption would be	A. 64 W B. 80 W C. 100 W D. 125 W
13	The electric intensity at infinite distance from the point charge will be	A. Infinite B. Positive C. Zero D. Negative
14	Resistor is a device which convert electric energy to	A. Heat energy B. Chemical energy C. Elastic energy D. All of the above
15	Physicist George Simon ohm was a	A. German physical B. French physicist C. Chinese physicist D. Russian physicist
16	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. $\frac{Q}{4\pi r^2}$ B. $\frac{2Q}{4\pi r^2}$ C. Q.d D. Zero
17	Electron volt is the unit of.	A. Potential difference B. Energy C. Resistance D. Capacitance
18	A metal plate of thickness half the separation between the capacitor plates of capacitance C is inserted. The new capacitance is	A. C B. C/2 C. Zero D. 2C
19	In a building, there are 15 bulbs of 40 watts, 5 bulbs of 100 watts, 5 fans of 80 watts and a heater of 1 kilowatt. The voltage of the electric main is 220 volts. The minimum efficiency of the main fuse of the building will be	A. 0.4 A B. 11.4 A C. 9.8 A D. 10.6 A
20	Ohm established a relation between	A. voltage and resistance B. voltage and charge C. voltage and current D. voltage resistance and charge