

## ECAT Physics Chapter 12 Electrostatics Online Test

Sr	Questions	Answers Choice
1	Two electric bulbs of 200 W and 100 W have same voltage. If $R_1$ and $R_2$ be their resistance respectively then	A. R <sub>1</sub> = 2R <sub>2</sub> B. R <sub>2</sub> = 2R <sub>1</sub> C. R <sub>2 </sub> = <sub> </sub> 4R <sub>1</sub> D. R <sub>1</sub> = 4R <sub>2</sub>
2	A point charge Q is placed at the mid-point of a line joining two charges. 4q and q. if the net force on charge q is zero. then Q must be equal to	Aq B. +q C2q D. +4q
3	The relation V = IR represents	A. Ampere law B. Faraday's law C. Ohm's law D. Len's law
4	A ten ohm electric heater operates on a 110 V line. Calculate the rate at which it develops heat in watts	A. 1310 W B. 670 W C. 810 W D. 1210 W
5	Two conductors having the same type of charges are connected by a conducting wire. There would not be any amount of charges on them if	A. They have the same potential B. They have the same amount of charge C. They have the same capacity D. They have the same shape
6	The electric field will be uniform	A. Near a positive point charge B. Near a negative point charge C. Between two oppositely charged parallel metal plates D. None of above
7	A capacitor of capacity 1 $\mu$ F is charged to 1 KV. The energy stored in J	A. 5 B. 0.5 C. 0.005 D. 50
8	Resistance of a conductor is increased, the currant will	A. Decrease B. Increase C. Remain the same D. None of these
9	Equal charges are given to two spheres of different radii. The potential will	A. Be more on the smaller sphere B. Be more on the bigger sphere C. Be equal on both the sphere D. Depend on the nature of the material of the sphere
10	At ordinary temperature, an increase in temperature increases the conductivity of	A. Conductor B. Semiconductor C. Insulator D. Alloy
11	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
12	The electric lines of force are	A. Imaginary B. Physically existing everywhere C. Physically existing near the charge D. All of the above
13	The ratio of the gravitational force $F_g$ to the electrostatic force $F_e$ between two electrons at the same distance apart is approximately	A. 9.8 B. 24 x 10 <sup>19</sup> C. 24 x 10 <sup>42</sup> D. 24 x 10 <sup>-44</sup>
	If the resistance of 2 ohm and 4 ohm are connected in parallel, the equivalent resistance	A. 6 ohm B. 4 ohm

15	When three identical bulbs of 60 watt, 200 volt rating are connected in series to a 200 volt supply, the power drawn by them will be	A. 180 watt B. 10 watt C. 20 watt D. 60 watt
16	Solar cell converts sunlight directly into	A. potential energy B. thermal energy C. mechanical energy D. electrical energy
17	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
18	The electric flux from a closed surface	A. Is independent of the shape of the surface B. Depends on the charge enclosed by the surface C. Both a and b D. None of the above
19	The unit of resistance is	A. volt B. ampere C. ohm D. coat
20	The SI unit of permitivity is	A. Nm <sup>2</sup> C <sup>2</sup> B. N <sup>-1</sup> m <sup>-2</sup> C <sup>2</sup> C. NmC <sup>2</sup> D. Nm <sup>2</sup> C <sup>&gt;1</sup>