

## ECAT Physics Chapter 12 Electrostatics Online Test

Sr	Questions	Answers Choice
OI .	Quotion is	A. Zero
1	A piece of fuse wire melts when a current of 15 ampere flows through it. With this current. If it dissipates 22.5 W, the resistance of fuse wire will be	A. Zero B. 10 <span style='color: rgb(34, 34, 34, 34); font-family: " Times New Roman"; font-size: 24px; textalign: center; background-color: rgb(255, 255, 248);'><bp></bp></span> C. 1 <span style='color: rgb(34, 34, 34); font-family: " Times New Roman"; font-size: 24px; textalign: center; background-color: rgb(255, 255, 248);'><bp></bp></span> D. 0.10 <span style='color: rgb(34, 34, 34); font-family: " Times New Roman"; font-size: 24px; textalign: center; background-color: rgb(34, 34, 34); font-family: " Times New Roman"; font-size: 24px; textalign: center; background-color: rgb(255, 255, 248);'><bp></bp></span>
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	In bringing an electron towards another electron, electrostatic potential energy of system	A. Decreases B. Increases C. Remains uncharged D. Becomes zero
4	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 <sup>2</sup> D. Nm <sup>2</sup>
5	A capacitor is charged with a battery and then it is disconnected. A slab of dielectric is now inserted between the plates, then	A. The charge in the plates reduces and potential difference increase B. Potential difference between the plates increase, stored energy decreases and charge remains the same C. Potential difference between the plates decreases and charge remains unchanged D. None of the above
6	One coulomb of charge is created by	A. 10 electrons B. 1.6 x 10 <sup>-19</sup> electrons C. 6.25 x 10 <sup>18</sup> electrons D. 6.25 x 10 <sup>21</sup> electrons
7	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
8	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>
9	Two electric bulbs of 200 W and 100 W have same voltage. If $\ensuremath{\text{R}}_1\ensuremath{\text{a}}$ 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> = esub> 4R <sub>1</sub> D. R <sub>1</sub> = 4R <sub>2</sub>
10	For two resistance wires joined in parallel, the resultant resistance is 6/5 ohm. When one of the resistance wire breaks, the effective resistance becomes 2 ohm. The resistance of the broken wire is	A. 3/5 ohm B. 2 ohm C. 6/5 ohm D. 3 ohm
11	A point charge Q is placed at the mid-point of a line joining two charges. 4q and q. if the net	Aq B. +q C. 2°

	iorce on charge q is zero, then Q must be equal to	C2q D. +4q
12	Ohm is the unit of	A. current B. capacitance C. energy D. resistance
13	The current through a metallic conductor is due to the motion of	A. protons B. neutrons C. electrons D. free electrons
14	The electric field due to an infinite long thin wire at a distance R varies as	A. 1/R B. 1/R <sup>2</sup> C. R D. R <sup>2</sup>
15	A charge of 0.1 c accelerated through a potential difference of 1000V acquires kinetic energy	A. 200 J B. 100 J C. 1000 J D. 400 J
16	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
17	An electron of charge e coulomb passes through a potential difference of V volts its energy in joules will be	A. V/e B. eV C. e/V D. V
18	The electric intensity outside the two oppositely charged parallel metal plates is	A. Maximum B. Minimum C. Zero D. Infinite
19	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
20	When an electron is accelerated through a P.D. of an one volt, it will acquire energy equal to	A. One joule B. One erg C. One electron volt D. None of these