

## ECAT Pre General Science Physics Chapter 12 Electrostatics

Sr	Questions	Answers Choice
1	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
2	If an electron of charge 'e' is accelerated through a potential difference V., it will acquire energy	A. Ve B. V/e C. e/V D. 2Ve
3	The charge per unit time through any cross-section of a conductor is called	A. capacitance B. electric power C. current D. potential difference
4	The unit of resistance is	A. volt B. ampere C. ohm D. coat
5	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
6	One moving a charge of 20 coulombs by 2 cm, 2 J of work is done, then the potential difference between the points is	A. 0.1 V B. 8 V C. 2 V D. 0.5 V
7	The SI unit of current is	A. watt B. coulomb C. volt D. ampere
8	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
9	The unit of intensity of electric field is	A. newton/coulomb B. jule/coulomb C. volt x metre D. newton/metre
10	The force between two chares 0.06 m apart is 5 N. If each charge is moved towards the other by 0.01 m, then the force between them will become	A. 7.20 N B. 11.25 N C. 22.50 N D. 45.00
11	Capacitance of two or more capacitors	A. Increases in series combination B. Increases in parallel combination C. Remains unchanged D. None of the above
12	Calculate the amount of charge flowing in 2 minutes in a wire of resistance $10\Omega$ when a potential difference of 20 V is applied between its ends	A. 120 C B. 240 C C. 20 C D. 4 C
13	If the resistance of 2 ohm and 4 ohm are connected in parallel, the equivalent resistance will be	A. 6 ohm B. 4 ohm C. zero ohm D. 1.33 ohm
14	In a Milikian's oil drop experiment the charge on an oil drop is calculated to be $6.35 \times 10^{-19}C$ . The number of excess electrons on the drop is	A. 3.9 B. 4 C. 4.2 D. 6
15	If the distance of separation between two chares is increased, the electrical potential energy of the system will	A. Increase B. Decrease C. May increase or decrease D. Remain the same

16	If a 40 watt light bulb burns for 2 hours. how much heat is generated	<p>A. <math>288 \times 10^3</math> J</p> <p>B. <math>288 \times 10^8</math> J</p> <p>C. <math>288 \times 10^5</math> J</p> <p>D. <math>288 \times 10^6</math> J</p>
17	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>
18	If the two charges in Coulomb's law have double distance between them, then electric force	<p>A. Becomes two-fold</p> <p>B. Becomes four-fold</p> <p>C. Remains the same</p> <p>D. None of these</p>
19	The unit of conductance is	<p>A. ohm</p> <p>B. meter</p> <p>C. mho</p> <p>D. ohm-meter</p>
20	The substances whose resistance decreases with the increase in temperature these substances have coefficient of	<p>A. positive temperature</p> <p>B. negative temperature</p> <p>C. absolute temperature</p> <p>D. zero temperature</p>