

ECAT Physics Chapter 12 Electrostatics Online Test

Sr	Questions	Answers Choice
1	10^6 electrons are moving through a wire per second, the current developed is	<p>A. 1.6×10^{-19} A</p> <p>B. 1 A</p> <p>C. 1.6×10^{-15} A</p> <p>D. 10^{-6} A</p>
2	The resistance of 20 cm long wire is 10Ω . When the length is changed to 40 cm. The new resistance is	<p>A. 10Ω</p> <p>B. 20Ω</p> <p>C. 30Ω</p> <p>D. 40Ω</p>
3	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>
4	Which one of the following causes production of heat when current is set up in a wire?	<p>A. Fall of electrons from higher orbits to lower orbits</p> <p>B. Inter-atomic collisions</p> <p>C. Inter-electron collisions</p> <p>D. Collisions of conduction electron with atoms</p>
5	Three resistors of resistance R each are combined in various ways. Which of the following cannot be obtained?	<p>A. $3R$</p> <p>B. $2R/4$</p> <p>C. $R/3$</p> <p>D. $2R/3$</p>
6	The resistance of the given conductor can be increased by	<p>A. Increasing the area</p> <p>B. Changing resistivity</p> <p>C. Decreasing the length</p> <p>D. None of the above because change does not matter because in any case the volume remains the same</p>

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	A 60 W bulb operates on 220 V supply. The current flowing through the bulb is	A. 11/3 A B. 3 A C. 3/11 A D. 6
9	At ordinary temperature, an increase in temperature increases the conductivity of	A. Conductor B. Semiconductor C. Insulator D. Alloy
10	Potentiometer is more sensitive than voltmeter, because	A. Voltmeter has a very high resistance B. Voltmeter has a very low resistance C. Potentiometer does not draw any current from a source of unknown potential difference D. Potentiometer is sensitive
11	A car battery has e.m.f 12 volt and internal resistance 5×10^{-2} ohm. If it draws 60 ampere current, the terminal voltage of the battery will be	A. 5 volt B. 3 volt C. 15 volt D. 9 volt
12	Specific resistance of a wire depends upon	A. Length B. Cross-section area C. Mass D. None
13	Cause of heat production in a current carrying conductor is	A. Collisions of free electrons with one another B. High drift speed of free electrons C. Collisions of free electrons with atoms or ions of conductor D. High resistance value
14	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
15	The powers of tow electric bulbs are 100 W and 200 W. Both of them are joined with 220 V mains. The ratio of resistances of their filaments will be	A. 1 : 2 B. 2 : 1 C. 1 : 4 D. 4 : 1