

## ECAT Physics Chapter 12 Electrostatics Online Test

Sr	Questions	Answers Choice
1	The energy stored in a charge capacitor	A. 1/2CV <sup>2</sup> B. 1/2C <sup>2</sup> V C. 1/2C/V <sup>2</sup> D. None of these
2	The liquid which conduct current is known as	A. heating effect B. chemical energy C. electrolyte D. ohm's law
3	A wire of radius r has resistance R. If it is stretched to a wire of r/2 radius, then the resistance becomes	A. 2R B. 4R C. 16R D. Zero
4	If electric and gravitational force on an electron in a uniform electric field will be	A. E=mg/q B. E=q/mg C. E=,g/q D. E=qg/m
5	The fractional change in resistance per kelvin is known as	A. temperature coefficient B. resistance coefficient C. super temperature D. critical temperature
6	The force of repulsion between two point charges is F, when these are at a distance 0.1 m apart. Now the point charges are replaced by sphere of radii 5 cm each having the same charge as that of the respective point charges. The distance between their centre is again kept 0.1 m; then the force of repulsion will	A. Increase B. Decrease C. Remain F D. Become 10F/9
7	If a 40 watt light bulb burns for 2 hours. how much heat is generated	A. 288 x 10 <sup>3</sup> J B. 288 x 10 <sup>8</sup> J C. 288 x 10 <sup>5</sup> J D. 288 x 10 <sup>6</sup> J
8	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
9	A closed surface contains two equal and opposite charges. The net electric flux from the surface will be	A. Negative B. Positive C. Infinite D. Zero
10	The potential difference across the conductors should be maintained constant by connecting the ends of wire to the terminal of a device called a source of	A. power B. current C. resistance D. temperature
11	Taking the earth to be a spherical conductor of diameter 12.8 x $10^3 \text{km}$ . Its capacity will be	A. 711 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b> </span> F  B. 611 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b> </span> F  C. 811 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b></span> F  D. 511 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman" font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b></span> F  D. 511 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman" font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b></span> F  D. 511 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman" font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b></span> F  D. 511 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman" font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b></span> F  D. 511 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman" font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b></span> F  D. 511 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman" font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b></span> F  D. 511 <span style='color: rgb(34, 34, 34); font-family: "Times New Roman" font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);'><b>u</b></span> F  D. 511 <span style="color: rgb(255, 255, 248);"><b>u</b></span> F  D. 511

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12	Magnetic effect at a point caused due to flow a current depend upon the	A. Quantity of current B. Distance from current C. Both the quantity of current and distance from current element D. None of the all
13	Resistance of a conductor depends upon	A. the quantity of current passing through it B. the voltage applied between its end C. its dimensions, physical state and nature of its material D. all of the above
14	In case of a parallel plate capacitor if the plate separation is doubled and plate area is halved, the capacitance becomes	A. Four-fold B. One-half C. One-fourth D. Zero
15	A uniform resistance wire of Length L and diameter d has a resistance R. Another wire of same material has length, 4L and diameter 2d, the resistance will be	A. 2 R B. R C. R/2 D. R/4
16	The electric lines of force are	A. Imaginary B. Physically existing everywhere C. Physically existing near the charge D. All of the above
17	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
18	If the length of the conductor is double and its cross sectional area is halved, its conductance will	A. Increase four fold B. Become one-fourth C. Become one-half D. Remains unchanged
19	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
20	The electric field intensity at a point due to a point charge	A. Falls off inversely as the distance B. Falls off inversely as the square of distance C. Remains unchanged with distance D. Increase directly as square of distance