

## PPSC Physics Chapter 6 Electricity and Magnetism

| Sr | Questions   | Answers Choice  |
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| 1  | The net charge on a condenser is  | A. Zero<br>B. $Q/2$<br>C. $2Q$<br>D. Infinity   |
| 2  | What is the traditional name for a capacitor  | A. Choke<br>B. Condenser<br>C. Transformer<br>D. Inductor   |
| 3  | What happens to the energy of a charged condenser if plate separation is increased.   | A. It decreases<br>B. It increases<br>C. It becomes zero<br>D. It remains unchanged   |
| 4  | In which form energy is stored in a condenser.  | A. Electric energy<br>B. Potential energy<br>C. Kinetic energy<br>D. Magnetic energy  |
| 5  | Lines of force are imaginary lines drawn so as to be energy point.  | A. parallel to equipotential surface<br>B. Normal to the electric field<br>C. Indicative of the position of the nearest source charge<br>D. Tangent to the electric field   |
| 6  | The electric field intensity of a point charge varies.  | A. Directly as the square of the distance from the charge<br>B. Directly as the square of the charge<br>C. Inversely as the distance from the charge.<br>D. Inversely as the square of the distance from the charge     |
| 7  | When a point charge which is responsible for a force being exerted on another point charge is suddenly moved the second charge experiences. | A. No change of force<br>B. An instantaneous change of force<br>C. A sudden change of force of some later time<br>D. an increase of its charge because of induction.  |
| 8  | The force exerted by two charged bodies on another obeys Coulomb's law provided that  | A. Both bodies are in the same medium<br>B. the charges are not too great<br>C. One body does not lie inside the other<br>D. The linear dimensions of the body are very much less than the distance between the bodies. |
| 9  | A device used to detect and measure charge is.  | A. A voltmeter<br>B. An ammeter<br>C. An electroscope<br>D. An amplifier  |
| 10 | Coulomb found that the mutual force between two electric charges varies.  | A. Inversely as the distance<br>B. Inversely as the square of the distance<br>C. directly as the distance<br>D. Directly as the distance squared  |
| 11 | Which of the following is an electrical insulator that can be polarized by an applied electric field.                                       | A. Conductor<br>B. Condenser<br>C. Dielectric<br>D. Capacitor   |
| 12 | Which of the following is the ability to hold an electric charge in electromagnetism.   | A. Resistance<br>B. Impedance<br>C. Inductance<br>D. Capacitance  |
| 13 | A charge kept at the centre of a shell. The shell has charge $Q$ and radius $R$ . The force on the central charge due to shell is           | A. in the upward direction<br>B. Towards left<br>C. Towards right<br>D. Zero  |

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|    |   | D. Zero   |
| 14 | No current flows between two charged bodies when connected if they have same.   | A. Charge<br>B. Capacity<br>C. Potential<br>D. Shape                      |
| 15 | In comparison with the electrostatic force between two electrons the electrostatic force between two protons is.  | A. Zero<br>B. Smaller<br>C. Greater<br>D. Same                            |
| 16 | A charged capacitor has charge on its   | A. Outside surface<br>B. Inner surface<br>C. Surroundings<br>D. Mid point |
| 17 | Force acting on a test charge between the plates of a parallel plate capacitor is F. If one of the plates is removed the force on the same test charge will be. | A. Zero<br>B. $F/2$<br>C. F<br>D. 2 F                                     |
| 18 | If the number of coulombs per second through a wire of 10 Ohm resistance across a 120 V line is 12, the current is  | A. 5 A<br>B. 10 A<br>C. 12 A<br>D. 15 A                                   |
| 19 | When a current of 2 A flows for 5 s through a lamp 120 W of power are used How much charge flows through the lamp.  | A. 10 C<br>B. 12 C<br>C. 24 C<br>D. 60 C                                  |
| 20 | When 5 C of charge flows through a particular resistor 10 J of energy is converted What is the p.d. across the resistor.  | A. 0.5 V<br>B. 2.0 V<br>C. 15 V<br>D. 50 V                                |