

PPSC Physics Topic 6 Electricity and Magnetism

Sr	Questions	Answers Choice
1	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 B. $F/2$ C. F D. $2 F$
2	A heater coil is cut into two equal parts and only one part is now used in the heater. The heat generated will be.	A. Halved B. One fourth C. Doubled D. 4 times
3	Why should the metal casing of an electrical fire be earthen.	A. To complete an electrical circuit. B. To prevent the fire from overheating C. To reduce the risk of electric shocks D. To stop the casing from getting too hot to touch
4	In the equation $P = IV \cos \theta$ $\cos \theta$ is known as	A. Phase angle B. Limiting angle C. Phase D. Power factor
5	An ammeter can be converted into a voltmeter by connecting a	A. Low resistance in series B. High resistance in series C. High resistance in parallel D. Low resistance in parallel
6	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 B. 10 A C. 12 A D. 15 A
7	The capacity of a spherical conductor is numerically equal to its.	A. Surface area B. Diameter C. Radius D. Volume
8	A p-type material is formed when a semiconductor is doped with	A. Trivalent impurity B. Tetravalent impurity C. All of above D. A material having excess of free electrons
9	A choke coil is a coil with	A. Low inductance and low resistance B. Low inductance and high resistance C. High inductance and low resistance D. Low inductance and negligible resistance
10	A device used to measure the strain of an object and it is a type of resistor that changes value with applied strain is a	A. thermistor B. Strain gauge C. Thermocouple D. Potentiometer
11	The value of electric field intensity is.	A. Volt B. Coulomb C. Newton D. Newton coulomb
12	Which equation in electromagnetism describes the magnetic field B generated by an electric current.	A. ampere's circuital law B. Bio savart law C. Gauss's law for electromagnetism D. Coulomb's law
13	Charge carriers in thermocouples are.	A. Anions B. Cations C. Electrons D. Protons
14	Electrostatic force as compared to gravitational force is	A. Zero B. infinite C. Very weak D. Very strong

D. Very strong

15	The sensitivity of the galvanometer can be increased by increasing the	A. Number of turns of the coil B. Area of the coil C. Strength of the magnetic field D. All of the above
16	What for is semiconductor diode used.	A. To convert D.C. to A.C. B. To convert A.C. to D.C. C. To increase voltage D. To decrease voltage
17	Which of the following is an electrostatic generator.	A. Winshurst machines B. Van de Graff generator C. Electrophorus D. All of the above
18	When a wire moves perpendicularly to a magnetic field, the induced emf does not depend upon	A. The velocity of the wire B. The resistance of the wire C. The flux density of the magnetic field D. The orientation of the wire field
19	If two conductors in the same vicinity each possess one coulomb of charge of opposite sign when one volt potential difference is established between them we may say they possess	A. A capacitance of one henry B. An inductance of one henry C. An impedance of one ohm D. A capacitance of one farad
20	Thermocouple is used for	A. Converting atomic energy into heat energy B. Measure the radiant energy C. Storing the heat energy D. Measuring current