MDCAT Physics Chapter 6 Electrostatics Online Test

Sr	Questions	Answers Choice
1	The electron is a cathode-ray tube are accelerated from cathode to anode by a potential differenceof 2000 V. If this p.d is increased to 8000 V, the electrons will arrive at the anode with:	A. Twice the kinetic energy and four times the velocity B. Four times the kinetic energy and twice the velocity C. Four times the kinetic energy and sixteen times the velocity D. Sixteen times the kinetic energy and four times the velocity
2	The distance between the plates of a charged parallel plate capacitor is 4mm and potential difference is 6 volts. If the distance between the plates is increased to 12mm, then :	A. The potential difference of the capacitor will become 18 volts B. The P.D become 20 volts C. The P.D will remain unchanged D. The charge on condenser will reduce to one third
3	The coulomb's law is valid for the charges which are:	A. Moving and point charges B. Stationary and point charges C. Moving and non-point charges D. Stationary and large size charges
4	Between the plates of a parallel plate condenser there is 1mm thick paper of dielectric constant 4. Itis charged at 100 volt. The electric field in volt/meter between the plates of the capacitor is:	A. 100 B. 25000 C. 100000 D. 400000
5	The law, governing the force between electric charges is known as:	A. Ampere's law B. Ohm's law C. Coulomb's law D. Faraday's law65y7uhnb
6	Capacitor stores energy in the form of :	A. Electric field B. Both of these C. Magnetic field D. Gravitational field
7	If the distance between the plates of a parallel plates capacitor is increased, its potential will:	A. Remain the same B. Increase C. Decrease D. Decrease exponentially
8	An electric field can deflect:	A. X-rays B. Neutrons C. □ −particles D. □ −rays
9	Which one of the following statements regarding electrostatics is wrong?	A. Charge is conserved B. Charge is quantized C. There is no field near an isolated charge at rest D. A moving charge produces both electric and magnetic fields
10	If the magnitude of charge on each of two objects is doubled and the distance between them is also doubled then force between them:	A. Doubled B. Quadrupled C. Halved D. Remains same
11	Two point charges +2 coulombs and +6 coulombs repel each other with a force of 12 N if a charge -4 coulomb is given to each of these charges the force will be:	A. 4N repulsive B. 8N repulsive C. 4N attractive D. 8N attractive
12	A soap bubble is give a negative charge, then its radius:	A. Decrease B. Remains same C. Increases D. Bubble will disappear
13	A charged conductor has charged on its:	A. Outer surface B. Surrounding surface C. Inner surface D. Middle point
14	A parallel plate air capacitor is charged and then isolated. When a dielectric material is	A. Electric field between the plates B. Charge on the plates

14	A parallel plate air capacitor is charged and then isolated. When a dielectric material is inserted between the plates of the capacitor , then which of the following does not change:	C. Potential difference across the plate D. Energy stored in the capacitor
15	A body gets positive charge. It means that:	A. It has lost electrons B. It has gained positions C. It has gained protons D. It has gained □ −particles
16	An electron is moving towards high potential. Its electrical P.E:	A. Increases B. Remains constant C. Decrease D. May increase may decrease
17	Charge on a capacitor is 50C. if voltage applied across its plates is 10V then its capacitance:	A. 5F B. 0.02F C. 500F D. 0.2F
18	Two charges of equal magnitudes and at a distance r exert a force F on each other. If the charges are halved and distance between them is doubled, then the new force acting on each charge is:	A. F/8 B. F/4 C. F/16 D. 4F
19	When a dielectric is inserted between the plates of a capacitor, Which one is true	A. Energy stored increase B. Energy stored decrease C. Capacitance decrease D. All
20	Area under Q-V graph for a capacitor represents	A. Charged stored B. Energy stored C. Electric field strength D. Potential difference
21	The relative permittivity of air is	A. 1 B. 3.7 C. 7.8 D. 1.0006
22	The relative permittivity of air is	A. 1 B. 3.7 C. 7.8 D. 1.0006
23	The potential difference between head and tail of an "electric eel" can be upto.	A. 6V B. 60V C. 6000V D. 600V
24	Two point charges repel each other with a force of 4× □□−□ newton at a distanceof meter. Two charges are	A. Both positive B. Alike C. Both Negative D. Unlike
25	Capacitance of a capacitor does not depend upon	A. Separation between plates B. Thickness of the plates C. Area of the plates D. Medium between the plates
26	A charge of 2C experiences a force 2000N in a uniform electric field. In this fieldthe potential difference between two points separated by a distance 1cm is	A. 2V B. 10V C. 5V D. 20V