

## MDCAT Physics Chapter 9 Electrostatics MCQ's Test

Sr	Questions	Answers Choice
1	A soap bubble is give a negative charge, then its radius:	A. Decrease B. Remains same C. Increases D. Bubble will disappear
2	The potential difference between head and tail of an "electric eel" can be upto.	A. 6V B. 60V C. 6000V D. 600V
3	Area under Q-V graph for a capacitor represents	A. Charged stored B. Energy stored C. Electric field strength D. Potential difference
4	Between the plates of a parallel plate condenser there is 1mm thick paper of dielectric constant 4. It is 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 law
6	A charge of 2C experiences a force 2000N in a uniform electric field. In this field the potential difference between two points separated by a distance 1cm is	A. 2V B. 10V C. 5V D. 20V
7	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
8	Two point charges repel each other with a force of $4 \times 10^{-4}$ newton at a distance of meter. Two charges are	A. Both positive B. Alike C. Both Negative D. Unlike
9	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
10	An electric field can deflect:	A. X-rays B. Neutrons C. $\alpha$ -particles D. $\gamma$ -rays
11	The relative permittivity of air is	A. 1 B. 3.7 C. 7.8 D. 1.0006
12	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:	A. Electric field between the plates B. Charge on the plates C. Potential difference across the plate D. Energy stored in the capacitor
13	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
14	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

15	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
16	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 $\square$ -particles
17	An electron is moving towards high potential. Its electrical P.E:	A. Increases B. Remains constant C. Decrease D. May increase may decrease
18	The relative permittivity of air is	A. 1 B. 3.7 C. 7.8 D. 1.0006
19	The electron in a cathode-ray tube are accelerated from cathode to anode by a potential difference of 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
20	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