MDCAT Physics Chapter 9 Electrostatics MCQ's Test

Sr	Questions	Answers Choice
1	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
2	The relative permittivity of air is	A. 1 B. 3.7 C. 7.8 D. 1.0006
3	A charged conductor has charged on its:	A. Outer surface B. Surrounding surface C. Inner surface D. Middle point
4	The potential difference between head and tail of an "electric eel" can be upto.	A. 6V B. 60V C. 6000V D. 600V
5	Area under Q-V graph for a capacitor represents	A. Charged stored B. Energy stored C. Electric field strength D. Potential difference
6	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
7	The relative permittivity of air is	A. 1 B. 3.7 C. 7.8 D. 1.0006
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	The distance between the plates of a charged parallel plate capacitor is 4mm and potential	A. The potential difference of the capacitor will become 18 volts B. The P.D become 20 volts

	difference is 6 volts. If the distance between the plates is increased to 12mm, then :	C. The P.D will remain unchanged D. The charge on condenser will reduce to one third
16	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
17	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
18	Capacitor stores energy in the form of :	A. Electric field B. Both of these C. Magnetic field D. Gravitational field
19	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
20	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