ECAT Pre General Science Physics Chapter 12 Electrostatics

Sr	Questions	Answers Choice
1	If a charged spherical conductor of radius 10 cm has potential V at a point distance 5 cm from its centre, then the potential at a point distance 15 cm from the centre will be	A. 1/3 V B. 2/3 V C. 3/2 V D. 3V
2	Two point charge +3**μC and +8μC repel each other with a force of 40 N. If a charge of -5μC is added to each of them, then the force between then will become**	A. -10 N B. +10 N C. +20 N D. -20 N
3	One coulomb of charge is created by	A. 10 electrons B. 1.6 x 10⁻¹⁹electrons C. 6.25 x 10¹⁸electrons D. 6.25 x 10²¹electrons
4	An electric charge at rest is	A. Only an electric field B. Only a magnetic field C. Both electric and magnetic fields D. None of the above
5	The unit of resistance is	A. volt B. ampere C. ohm D. coat
6	If we increase the distance between two plates of the capacitor, the capacitance will	A. Increase B. Decrease C. Remain same D. First increase then decrease
7	One electron volt is equal to	A. 1.6 x 1019eV B. 6.25 x 1018 eV C. 1.6 x 1018 eV D. 6.25 x 1019eV
8	When a dielectric material is introduced between the plates of a charged condenser the electric field between the plates	A. Decreases B. Increases C. No change D. May increase or decresase
9	The electrode connected with the positive terminal of the current source is called	A. cathode B. anode C. electrolyte D. position
10	In a charged capacitor the energy is stored in	A. Both in positive and negative charges B. Positive charges C. The edges of the capacitor plates D. The electric field between the plates
11	In a voltmeter the conduction takes place due to	A. Electrons only B. Holes only C. Electrons and holes D. Electrons and ions
12	Three resistance 500,500 and 50 ohms are connected in series across 555 volts mains. The current flowing through them will be	A. 0.52 A B. 1 mA C. 0.7 mA D. 1.4 A
13	Solar cell converts sunlight directly into	A. potential energy B. thermal energy C. mechanical energy D. electrical energy
14	In case of a parallel plate capacitor if the plate separation is doubled and plate area is halved, the capacitance becomes	A. Four-fold B. One-half C. One-fourth D. Zero
	The statement "the electric force of repulsion or attraction between two point	A. Coulomb's law

15	charges is directly proportional to the product of the charges and inversely proportional to square of the distance between them" refer to	B. Gauss's law C. Biot-Sarwat law D. Ampere's law
16	The value of electrical constant of proportionality k is	A. 9 x 10⁹Nm²C⁻² B. 9 x 10⁻⁹Nm²C⁻² C. 9 x 10¹⁰Nm²C² D. 9.85 x 10⁻¹²N⁻¹C⁻²
17	A uniform resistance wire of Length L and diameter d has a resistance R. Another wire of same material has length, 4L and diameter 2d, the resistance will be	A. 2 R B. R C. R/2 D. R/4
18	If the resistance of 2 ohm and 4 ohm are connected in parallel, the equivalent resistance will be	A. 6 ohm B. 4 ohm C. zero ohm D. 1.33 ohm
19	A point charge A of charge +4μC and another B of charge -1μC are placed in air at a distance 1 m apart. Then the distance of the point on the line joining the charge B, where the resultant electric field is zero, is (in m)	A. 2 B. 1 C. 0.5 D. 1.5
20	One joule is equal to	A. 1.6 x 10¹⁹eV B. 6.25 x 10¹⁸eV C. 1.6 x 18¹⁸eV D. 6.25 x 10¹⁹eV