ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Electron volt is the unit of.	A. Potential difference B. Energy C. Resistance D. Capacitance
2	The relation between the charge Q of a parallel plate capacitor and the P.D between its plates is	A. Q=V/C B. Q=C/V C. Q=1/2CV D. Q=CV
3	Electron volt is the unit of	A. Potential difference B. Energy C. Resistance D. Capacitance
4	If an electron of charge 'e' is accelerated through a potential difference V., it will acquire energy	A. Ve B. V/e C. e/V D. 2Ve
5	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
6	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
7	When an electron is accelerated through a P.D. of an one volt, it will acquire energy equal to	A. One joule B. One erg C. One electron volt D. None of these
8	The earth's potential is taken as	A. Negative B. Positive C. Zero D. Infinite
9	The electric lines of force are	A. Imaginary B. Physically existing everywhere C. Physically existing near the charge D. All of the above
10	Which one of the following is the unit of electric field intensity	A. JC⁻¹ B. Vm⁻¹ C. Cm⁻¹ D. CJ⁻¹
11	A closed surface contains two equal and opposite charges. The net electric flux from the surface will be	A. Negative B. Positive C. Infinite D. Zero
12	The electric flux from a closed surface	A. Is independent of the shape of the surface B. Depends on the charge enclosed by the surface C. Both a and b D. None of the above
13	The electric flux is linked with a surface will be maximum when	A. The surface is held parallel to the electric field B. The surface is held perpendicular to the electric field C. The surface makes an angle of 45° with the electric field D. All of the above
14	The SI unit of electric flux is	A. Weber B. Nm²C⁻¹

		C. NmC⁻¹ D. Nm⁻²C
15	Electric flux is defined by the relation	A. E.A. B. E x A C. E/A D. none of these
16	The dot product of electric field intensity E and vector area A is called	A. Electric potential B. Electric flux C. Electric field D. Magnetic field
17	The SI unit of electric field intensity is	A. CN⁻¹ B. NC⁻¹or Vm⁻¹ C. JC⁻¹ D. AV⁻¹
18	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
19	A charge of 0.1 c accelerated through a potential difference of 1000V acquires kinetic energy	A. 200 J B. 100 J C. 1000 J D. 400 J
20	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
21	The electric field will be uniform	A. Near a positive point charge B. Near a negative point charge C. Between two oppositely charged parallel metal plates D. None of above
22	Which one of the following has larger value of relative permitivity $E_r$at room temperature?	A. Vaccum B. Air C. Glass D. Water
23	If electric and gravitational force on an electron in a uniform electric field will be	A. E=mg/q B. E=q/mg C. E=,g/q D. E=qg/m
24	Coulomb force, when any material medium is placed between two charges	A. Increases B. Decreases C. Remain unchanged D. None of these
25	The minimum charge on any object can not be less than	A. 1.6 x 10⁻¹⁹C B. 3.2 x 10⁻¹⁹C C. 1.0 C D. 4.8 x 10⁻¹⁹C
26	The ratio of the gravitational force $F_g$to the electrostatic force $F_e$between two electrons at the same distance apart is approximately	A. 9.8 B. 24 x 10¹⁹ C. 24 x 10⁴² D. 24 x 10⁻⁴⁴
27	The statement "the electric force of repulsion or attraction between two point charges is directly proportional to the product of the charges and inversely proportional to square of the distance between them" refer to	A. Coulomb's law B. Gauss's law C. Biot-Sarwat law D. Ampere's law
28	The electric field intensity at a point due to a point charge	A. Falls off inversely as the distance B. Falls off inversely as the square of distance C. Remains unchanged with distance D. Increase directly as square of distance
29	Coulomb's force between two point charges depends upon	A. Magnitude of charges B. Distance between them C. Medium in which they are located D. All of the above
30	The concept of field theory was put forward by	A. Franklin B. Kepler C. Oersted D. Michael Faraday