

Physics ECAT Pre Engineering Online Test

Sr	Questions	Answers Choice
1	The charge carriers in electrolyte are positive and negative	A. protons B. electrons C. ions D. none of these
2	The relation between charge 'Q' and current 'I' is given by	A. $Q = I/t$ B. $Q = It$ C. $Q = I \times t^2$ D. $Q = I^2 \times t$
3	Which of the following represents an electric current?	A. $C \times 10^{-1}$ B. $C \times 10^{-1}$ C. $J.S \times 10^{-1}$ D. dynes $\times 10^{-1}$
4	The SI unit of current is	A. watt B. coulomb C. volt D. ampere
5	One coulomb per second is equal to	A. One volt B. One ampere C. One hom D. One henry
6	The charge per unit time through any cross-section of a conductor is called	A. capacitance B. electric power C. current D. potential difference
7	Free electrons are	A. tightly bound B. fixed C. loosely bound D. tightly fixed
8	The current through a metallic conductor is due to the motion of	A. protons B. neutrons C. electrons D. free electrons
9	In RC series circuit the time during which the capacitor acquires 0.63 times the equilibrium charge is called	A. Time constant B. Decay constant C. None of these D. All of above
10	Capacitance of two or more capacitors	A. Increases in series combination B. Increases in parallel combination C. Remains unchanged D. None of the above
11	The electric intensity at infinite distance from the point charge will be	A. Infinite B. Positive C. Zero D. Negative
12	The electric intensity outside the two oppositely charged parallel metal plates is	A. Maximum B. Minimum C. Zero D. Infinite
13	The energy stored in a charge capacitor	A. $\frac{1}{2} CV^2$ B. $\frac{1}{2} C \times V$ C. $\frac{1}{2} C/V^2$ D. None of these
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
15	The capacitance of a parallel plate capacitor depends upon	A. Area of the plates B. Separation between the plates C. Medium between the plates D. All of the above

16	Surface density of charge is defined as	A. Charge per unit volume B. Charge per unit length C. Charge per unit area D. Charge per unit mass
17	The SI unit of capacitance is	A. Farad B. Henry C. Ohm D. Volt
18	Electron volt is the unit of.	A. Potential difference B. Energy C. Resistance D. Capacitance
19	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. $Q=CV$
20	Electron volt is the unit of	A. Potential difference B. Energy C. Resistance D. Capacitance
21	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
22	One joule is equal to	A. $1.6 \times 10^{19} \text{ eV}$ B. $6.25 \times 10^{18} \text{ eV}$ C. $1.6 \times 10^{18} \text{ eV}$ D. $6.25 \times 10^{19} \text{ eV}$
23	One electron volt is equal to	A. $1.6 \times 10^{19} \text{ eV}$ B. $6.25 \times 10^{18} \text{ eV}$ C. $1.6 \times 10^{18} \text{ eV}$ D. $6.25 \times 10^{19} \text{ eV}$
24	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
25	The earth's potential is taken as	A. Negative B. Positive C. Zero D. Infinite
26	The electric lines of force are	A. Imaginary B. Physically existing everywhere C. Physically existing near the charge D. All of the above
27	Which one of the following is the unit of electric field intensity	A. JC^{-1} B. Vm^{-1} C. Cm^{-1} D. CJ^{-1}
28	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
29	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
30	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