

Physics ECAT Pre Engineering Chapter 12 Electrostatics

Sr	Questions	Answers Choice
1	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
2	Equal charges are given to two spheres of different radii. The potential will	A. Be more on the smaller sphere B. Be more on the bigger sphere C. Be equal on both the sphere D. Depend on the nature of the material of the sphere
3	The potential difference across each resistance in series combination is	A. same B. different C. zero D. none of these
4	The fractional change in resistance per kelvin is known as	A. temperature coefficient B. resistance coefficient C. super temperature D. critical temperature
5	Capacitance of two or more capacitors	A. Increases in series combination B. Increases in parallel combination C. Remains unchanged D. None of the above
6	Free electrons are	A. tightly bound B. fixed C. loosely bound D. tightly fixed
7	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
8	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
9	A capacitor of capacity 1 μ F is charged to 1 KV. The energy stored in J	A. 5 B. 0.5 C. 0.005 D. 50
10	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
11	A conducting wire is drawn to double its length. Final resistivity of the material will be	A. Double of the original oneB. Half of the original oneC. One fourth of the original oneD. Same as original one
12	The SI unit of electric field intensity is	A. CN ⁻¹ B. NC ⁻¹ or Vm ⁻¹ C. JC ⁻¹ D. AV ⁻¹
13	The unit of resistance is	A. volt B. ampere C. ohm D. coat
14	Resistor is a device which convert electric energy to	A. Heat energy B. Chemical energy

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15	The excess (equal in number) of electrons that must be placed on each of two small spheres spaced 3 cm apart, with force of repulsion between the spheres to be 10^{-19} N, is	A. 25 B. 225 C. 625 D. 1250
16	A ten ohm electric heater operates on a 110 V line. Calculate the rate at which it develops heat in watts	A. 1310 W B. 670 W C. 810 W D. 1210 W
17	The material in the form of wire or rod or plate which leads the current into or cut of the electrolyte is known as	A. voltmeters B. resistance C. electrode D. current
18	Heating effect caused by an electric circuit is written	A. H = ² Rt B. H = ² R C. H = R ² t D. H = R ²
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	A 60 W bulb operates on 220 V supply. The current flowing through the bulb is	A. 11/3 A B. 3 A C. 3/11 A D. 6