

## ECAT Pre General Science Physics Chapter 12 Electrostatics Online Test

Sr	Questions	Answers Choice
1	A (100 W , 200 W) bulb is connected to a 160 V power supply. The power consumption would be	A. 64 W B. 80 W C. 100 W D. 125 W
2	The conductivity of a superconductor is	A. Infinite B. Very large C. Very small D. Zero
3	Cause of heat production in a current carrying conductor is	A. Collisions of free electrons with one another     B. High drift speed of free electrons     C. Collisions of free electrons with atoms or ions of conductor     D. High resistance value
4	The unit of conductance is	A. ohm B. meter C. mho D. ohm-meter
5	A condenser of capacity 50 $\mu$ F is charged to 10 V.The energy stored is	A. 1.25 x 10 <sup>-3</sup> J B. 3.75 x 10 <sup>-3</sup> J C. 2.5 x 10 <sup>-3</sup> J D. 5 x 10 <sup>-3</sup> J
6	Heating effect caused by an electric circuit is written	A. H = I <sup>2</sup> Rt B. H = I <sup>2</sup> R C. H = IR <sup>2</sup> t D. H = IR <sup>2</sup>
7	A cube of metal is given a positive charge Q. For the above system, which of the following statements is true?	A. Electric potential at the surface of the cube is zero     B. Electric potential within the cube is zero     C. Electric filed is normal to the surface of the cube     D. Electric filed varies within the cube
8	Physicist George Simon ohm was a	A. German physical B. French physicist C. Chinese physicist D. Russian physicist
9	If one volt is needed to cause a current of one ampere to flow in a conductor, its resistance is	A. one ohm B. one joule C. one volt D. one ampere
10	A parallel plate capacitor is first charged and then a dielectric slab is introduced between the plates. The quantity that remains unchanged is	A. Charge Q B. Potential V C. Capacity D. Energy U
11	If a 40 watt light bulb burns for 2 hours. how much heat is generated	A. 288 x 10 <sup>3</sup> J B. 288 x 10 <sup>8</sup> J C. 288 x 10 <sup>5</sup> J D. 288 x 10 <sup>5</sup> J
12	The force between two chares 0.06 m apart is 5 N. If each charge is moved towards the other by 0.01 m, then the force between them will become	A. 7.20 N B. 11.25 N C. 22.50 N D. 45.00
13	An alpha particle is accelerated through a potential difference of $10^6 \text{volt}$ . Its kinetic energy will be	A. 1 MeV B. 2 MeV C. 4 MeV D. 8 MeV
14	A medium of dielectric constant 'K' is introduced between the plates of parallel plate condenser. As a result its capcitance	A. Increase k time B. Decreases k times C. Decreases 1/K times D. Remains unchanged
15	In Pakistan electricity is supplied for domestic use at 220 V, it is supplied at 110 V in USA. If the resistance of a 60 W bulb for use in Pakistan is R, the resistance of a 60 W bulb for use in USA will be	A. 2 R B. R/4 C. R/2

	100/01/01/00 01 d 00 11 Bailb 101 d00 iii 00/11/iiii 00	D. R
16	The capacitance of a parallel plate capacitor depends upon	<ul><li>A. Area of the plates</li><li>B. Separation between the plates</li><li>C. Medium between the plates</li><li>D. All of the above</li></ul>
17	The value of electrical constant of proportionality k is	A. 9 x 10 <sup>9</sup> Nm <sup>2</sup> C <sup>-2</sup> B. 9 x 10 <sup>-9</sup> Nm <sup>2</sup> C <sup>-2</sup> C. 9 x 10 <sup>Nm<sup>2</sup>C. 9 x 10<sup>Nm<sup>2</sup>C<sup>-2</sup>C. 9 x 10<sup>10</sup>Nm<sup>2</sup>C<sup>-2</sup>C<sup>-2</sup>C<sup>-2</sup>C<sup>-2</sup>C<sup>-2</sup>D. 9.85 x 10<sup>-12</sup>N<sup>-1</sup>-1</sup>-1</sup> -1<
18	The charge per unit time through any cross-section of a conductor is called	A. capacitance     B. electric power     C. current     D. potential difference
19	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
20	The electric lines of force are	A. Imaginary     B. Physically existing everywhere     C. Physically existing near the charge     D. All of the above