ECAT Physics Online Test

Sr	Questions	Answers Choice
1	When there is no relative motion between the magnet and coil, the galvanometer indicates:	A. No current in circuit B. An increasing current C. A decreasing current D. Either B or C
2	A rheostat can e used:	A. As variable resistor B. As potential divider C. For varying the current D. All of these E. None of these
3	If an amount of heat enters the system it could	A. decrease the internal energy B. not change the internal energy C. increase the internal energy D. none of them
4	The SI unit of stress is	A. N/m² B. Nmc C. dynes/m D. N
5	The obvious effect/s of current is/are:	A. Heating effect<o:p></o:p> B. Magnetic effect<o:p></o:p> C. Chemical effect<o:p></o:p> D. Both (C) and (B)<o:p></o:p> E. All of these
6	The general theory of relativity treats problems involving	A. inertial frame of references B. accelerating frame of references C. both of these D. none of these
7	The length of rotating vector (on a certain scale) represents the:	A. Peak value of alternating quantity B. RMS value of alternating quantity C. Instantaneous value of alternating quantity D. Either (B) or (C) E. Either (A) or (B)
8	The motion of molecules in gases is:	A. Orderly B. Random C. Circular D. All of these
9	A wire of radius r has resistance R. If it is stretched to a wire of r/2 radius, then the resistance becomes	A. 2R B. 4R C. 16R D. Zero
		A. 120 x 10.8 N

10	A vehicle of mass 120 kg is moving with a uniform velocity of 108 km/h. The force required to stop the vehicle in 10s is	B. 180 N C. 720 N D. 360 N
11	For an atom having atomic number 'Z' and atomic weight 'A', the number of neutrons in the nucleous is	A. A - Z B. A C. Z D. A + Z
12	A second's pendulum is a pendulum whose time period is	A. 1 second B. 2 seconds C. 3 seconds D. 4 seconds
13	As the current flows through the wire	A. It generates heat in the wire B. It produces sound in the wire C. Resistance of the wire decrease D. Voltage across the ends is the increase E. None of these
14	One kilogram of different substances contain	A. same number of molecules B. different number of molecules C. may be same or different D. none of them
15	A point charge Q is placed at the mid-point of a line joining two charges. 4q and q. if the net force on charge q is zero. then Q must be equal to	A. -q B. +q C. -2q D. +4q
16	Change in momentum is one second is called:	A. Impulse B. Force C. Energy D. Work
17	Tick the correct statement:	A. <span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast">Both the potential and potential difference is scalars<o:p></o:p> B. <span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast">Potential is a scalar but potential difference is a vector<o:p></o:p> C. Both are vectors <span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast"><o:p></o:p> D. <span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast">Potential is vector but potential difference is scalar<o:p></o:p> E. <span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font: minor-fareast">None of these<o:p></o:p>
18	The closed loop gain of the non-inverting amplifier is given by	A. G = R₂/R₁ B. G = -R₂/R₁ C. G = 1 - R₂/R₁ D. G = 1 + T₂/R₁
19	Find the total displacement of a body in 8 seconds starting from rest with an	A. 0.064 m B. 640 cm

	acceleration of 20 cm/s²	C. 64 cm D. 64 m
20	Glass is an example of	A. crystalline solid B. amorphous solid C. polymeric solid D. none of them