ECAT Physics Online Test

Sr	Questions	Answers Choice
1	The earliest heat engine was	A. petrol engine B. diesel engine C. electric engine D. steam engine
2	If a given spring of spring constant k is cut into two indentical segments, the spring constant of each segment is:	A. k/2 B. 2 k C. 4 k D. None of these
3	Structure of the nucleus was explained by	A. J.J Thomson B. Bohr C. Millikan D. Rutherford
4	Cosine of an angle is positive in:	A. 2nd quadrant B. 3rd quadrant C. 4th quadrant D. All of these
5	The magnetic field in the middle of a solenoid due to current is	A. weak B. strong and uniform C. none-uniform D. zero
6	According to Einstein, with the great increase in the speed of the body, the relativistic mass of the body	A. Remains constant B. Decreases C. Increases to infinity D. Reduced to zero
7	The magnetic field inside a solenoid can be increased by:	A. Increasing n B. Decreasing I C. Increasing I D. By using iron core within solenoid E. All correct except (B)
8	Which one of the following relations is correct?	A. 1 Wb-m²= Nm⁻¹A⁻¹ B. 1 tesla = 104 gausses C. 1 Wb-m²= 1 tesla D. All of the above
9	The application of Bernoulli's equation is	A. Torricelli's theorem B. Venture relation C. Binomial theorem D. Both a and b
10	Max plank received the Nobel Prize in physics for his discovery of energy quanta in	A. 1900 B. 1906 C. 1912 D. 1918
11	The restoring force is _____ amd opposite to the applied force within _____:	A. Equal, elastic limit B. Different, the walls of the laboratory C. Different, elastic limit D. None of these
12	Moment of linear momentum is called.	A. Moment arm B. Moment of inertia C. Inertia D. Angular momentum
13	The reactance of a cell changes directly with	A. frequency of a.c B. the inductance C. both a and b D. none of these
14	A condenser of capacity 50μF is charged to 10 V.The energy stored is	A. 1.25 x 10⁻³J B. 3.75 x 10⁻³J C. 2.5 x 10⁻³J D. 5 x 10⁻³J
		A. Amount of charge

15	The intensity at a point due to a charge is inversely proportional to	B. Size of the charge C. Distance between charge and the point D. Square of the distance from the charge E. None of these
16	The change of order of vectors in a dot product of two vectors:	A. Changes its value B. Doesn't change it's value C. Changes the direction product quantity D. None of these
17	The induced current in the loop can be increased by:	A. Using a stronger magnetic field B. Moving the loop faster C. Replacing the loop by a coil of many turns D. All above E. Both (A) and (B)
18	A tight wire is clamped at two points 2.0 m apart. It is plucked near one end. Which are the three longest wavelengths present on the vibrating wire.	A. 2.0 m, 1m, 0.67 m B. 4.0 m, 2.0 m, 1m C. 4.0 m, 2.0 m, 1.33 m D. 1m, 0.5 m ,0.33 m
19	The doped semi-conductor materials are known as	A. intrinsic semi-conductor B. extrinsic semi-conductor C. either of them D. none of them
20	The highest value reached by the voltage or current:	A. In quarter cycle is called Instantaneous value B. In half cycle is called peak-to-peak value C. In one cycle is called peak value D. In half cycle is called Instantaneous value E. None of these