

ECAT Physics Online Test

Sr	Questions	Answers Choice
1	It is impossible to devise a processes which may convert heat, extracted from a single reservoir, entirely into work without leaving any change in the working system. This is the statement of	A. Clausius statement of second law B. Kelvin'sstatement of second law C. Clausius statement of first law D. Kelvin's statement of first law
2	Bernoulli's equation is based upon law of conversation of	A. mass B. momentum C. Energy D. None
3	0.1 kg mass will be equivalent to the energy	A. 9 x 10 ¹⁵ J B. 5 x 10 ⁸ J C. 6 x 10 ¹⁶ J D. 9 x 10 ⁻¹⁶ J
4	If the radius of first orbit of hydrogen atom is 0.53° A the radius of second orbit will be	A. 2.120 °A B. 0.212 °A C. 21.2 °A D. 0.14 ° °°
5	Two bullets are fired simultaneously, horizontally and with different speeds from the same place. Which bullet will hit the ground first?	A. The faster one B. Depends on their mass C. The slower one D. Both will reach simultaneously
6	The dimensions of viscosity are:	A. M ² L ⁻¹ T ⁻² B. M ⁻¹ L ¹ T ⁻¹ C. M ⁻¹ T ^{T D. ML⁻¹T}
7	The electrons in the outermost shell of an atom are called	A. core electrons B. valence electrons C. high energy electrons D. none of them
8	A hollow insulated conduction sphere is given a positive charge of 10 μ C. What will be the electric field at the centre of the sphere if its radius is 2 meters?	A. Zero B. 5 µ C m ⁻² C. 20 µ C m ⁻² D. 8 µ C m ⁻²
9	To designate the voltage as low or 0 by a logic gate, the specified minimum value is:	A. 0.2 volt B. 0.8 volt C. 0 volt D. 2.0 volt E. 5.0 volt
10	When a conductor is moved across a magnetic field, the redistribution of charge sets up:	A. Magnetic field B. Electrostatic field C. Electromagnetic field D. All of these E. None of these
11	The capacitance of a parallel plate capacitor depends upon	A. Area of the plates B. Separation between the plates

2 2 2 2 2 2 2 2 2 2			C. Medium between the plates D. All of the above
2 / Sup> B 9 x 10 / Sup> Pof-sup> Pof-s	12	In a normal healthy person the value of diastolic pressure is	B. 100 torr C. 120 torr
14 when the deformation produced in the material become permanent, this type of behaviour is called B. elasticity C. plasticity D. none of them 15 In velocity of a particle at an instant is 10 m/s and after 5s the velocity of the particle is 20 m/s. The velocity 3s before in m/s is A. 8 B. 4 C. 6 D. 7 16 If m means mass of gases objected per second from a rocket and v shows the change in velocity, than mv is named as: A. Force B. Energy C. work D. impulse 17 The penetration power ofβ-particle is A. zero B. less than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span> D. greater than span style="color: rgb(34, 34, 34) font-family: arial, sans-serif, font-size: small;">particle span>	13	The value of electrical constant of proportionality k is	B. 9 x 10 ⁻⁹ Nm ² C ^{- 2} C. 9 x 10 ¹⁰ Nm ² C ² D. 9.85 x 10 ⁻¹² N ⁻
15	14		B. elasticity C. plasticity
16 If m means mass of gases objected per second from a rocket and v shows the change in velocity, than mv is named as: B. Energy C. work D. impulse 17 The penetration power ofβ-particle is A zero B. less than particle 18 A mass of 5kg moves with an acceleration of 10m s⁻²force applied is A. 10 B. 50 C. 2+b>N D. 20 D. yealer than 19 The percentage of available heat energy converted into work by a diesel engine is roughly A. 35 %' B. 40 % C. 35 - 40 % D. 25 % 20 At the top of the trajectory of a projectile the acceleration is A. The maximum B. The minimum C. Zero	15		B. 4 C. 6
B. less than particle C. equal to particle D. greater than particle A 10 N B 50 N B 50 N C 2 N C 2 N C 2 N D 20 D 20 A 35 % B 40 % D 25 % A The maximum B. The minimum C. Zero	16		B. Energy C. work
A mass of 5kg moves with an acceleration of 10m s ⁻² force applied is C. 2 N C. 2 N D. 20 N D. 20 N A. 35 % B. 40 % C. 35 - 40 % D. 25 % A. The maximum B. The minimum C. Zero	17	The penetration power ofβ-particle is	B. less than α-particle C. equal to α-particle D. greater than α-
The percentage of available heat energy converted into work by a diesel engine is roughly B. 40 % C. 35 - 40 % D. 25 % A. The maximum B. The minimum C. Zero	18	A mass of 5kg moves with an acceleration of 10m s ⁻² force applied is	B. 50 N C. 2 N
20 At the top of the trajectory of a projectile the acceleration is B. The minimum C. Zero	19		B. 40 % C. 35 - 40 %
D. 9	20	At the top of the trajectory of a projectile the acceleration is	B. The minimum