

## ECAT Physics Online Test

Sr	Questions	Answers Choice
1	In radioactive decay, the new element which is formed due to the disintegration of original element is called	A. element B. daughter element C. parent element D. none of these
2	When either L or C is increased, the resonant frequency of the RLC series circuit	A. Increases B. Decreases C. Remains the same D. Becomes zero
3	Two samples A and B of a gas initially of the same temperature and pressure are compressed from a volume V to a volume V/2 such that A is compressed isothermally and B adiabatically. The final pressure	A. A greater than than of B B. A is equal to that of B C. A is less than that of B D. A is twice the pressure of B
4	The magnetic force exerted on an electron moving with velocity 'v' at right angle to the magnetic field is given by	A. F=eVB B. F=e <sup>2</sup> V/B C. F=e/VB D. F=B <sup>2</sup> /ev
5	The distance covered by a body in unit time is called.	A. Displacement B. speed C. Velocity D. Both B and C
6	Hydrogen and helium of same volume V at same temperature T and same pressure P are mixed to have same volume V. The resulting pressure of the mixtures will be	A. R/2 B. P C. 2P D. Depending on the relative mass of the gases
7	Which of the following does not have the same units:	A. Work B. Heat C. Kinetic energy D. Power
8	The percentage of available heat energy converted into work by a diesel engine is roughly	A. 35 %` B. 40 % C. 35 - 40 % D. 25 %
9	The internal pressure of the blood is	A. less than the external atmospheric pressure B. greater than the external atmospheric pressure C. equal to the external atmosphericpressure D. none of them
10	The vertical and horizontal range will be equal id angle of projection is	A. 76 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span> B. 45 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span> C. 60 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span> D. 120 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span>
11	The working of all DC electric meters (galvanometers, ammetersand voltmeters) depends upon	A. Heating effect of current     B. Chemical effect of current     C. Magnetic effect of current     D. Electromagnetic effect of current
12	While deriving the equation for pressure of a gas we consider the	A. rotational motion of molecules     B. vibrational motion of molecules     C. linear motion of molecules     D. all of them
13	Newton's laws are adequate for speeds that are	A. low compared with the speed of light  B. equal to the speed of light

		C. greater than the speed of light D. all of them
14	For Protium, the mass defect is:	A. Infinite B. Zero C. Very large D. A few grams E. None of these
15	Radioactivity was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. All of them E. None of these
16	If the volume of the gas is to be increased by 4 times, then	A. Temperature and pressure must be doubled B. At constant P the temperature must be increased by 4 times C. At constant T the pressure must be increased by four times D. It cannot be increased
17	The force applied on unit area to produce any change in the shape, volume or length of a body is known as	A. strain B. elasticity C. stretching D. stress
18	While deriving equation of pressure by kinetic theory of gases, we take into account:	A. Only linear motion of molecules B. Only rotational motion C. Only vibratory motion D. All of these
19	Which of the following material has smaller has life	A. uranium B. polonium C. radium D. radian
20	When the waveform of one voltage is increasing and that of second is decreasing and vice versa, then phase difference between these voltage is	A. 90 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span> B. 75 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span> C. 0 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span> D. 180 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span>