

## ECAT Physics Online Test

Sr	Questions	Answers Choice
1	A gas which strictly obeys the gas laws under all conditions of temperature and pressure is called:	A. Ideal gas B. Inert gas C. Real gas D. None of these
2	An isochoric process is one which take place at	A. Constant internal energy B. Constant entropy C. Constant volume D. Constant pressure
3	In gases, the charge carriers are:	A. Electrons B. Positive ions C. Negative ions D. Both A and C E. Both A and B
4	Amorphous solids:	A. Have definite melting points B. Are called glassy solids C. Have no definite melting point D. Both (B) and (C) E. Both (A) and (C)
5	The conduction band in a solid	A. may be empty B. cannot be empty C. should be filed D. all of them
6	Viscosity is defined as	A. the friction between fluid and its container's walls B. the internal friction between two layers of fluid C. the resistance to flow a fluid experiences D. the extent to which outside factors effect the fluid's flow
7	The e/m of an electron moving in a circular path in a magnetic field is equal to	A. V/Br B. V/B <sup>2</sup> r <sup>2</sup> C. V <sup>2</sup> Br D. V <sup>2</sup> Br
8	The half lie of radium-226 is	A. 238 years B. 4.5 x 10 <sup>9</sup> days C. 1620 years D. 332 years
9	Most practical applications of electricity involve	A. Charges at rest B. Charges in motion C. Electrons at rest D. Atoms in motion E. Molecules in motion
10	Two projectiles are fired from the same point with the same speed at angles of projection 60° and 30° respectively. Which one of the following is true?	A. Their range will be same B. Their maximum height will be same C. Their landing velocity will be same D. Their time of flight will be same
11	If the displacement of a body executing S.H.M is plotted against time, then the curve is known as	A. frequency of S.H.M B. period of S.H.M C. wave form D. none of them
12	A resonance curve for RLC series circuit is a plot of frequency versus	A. Voltage B. Current C. Impedance D. Reactance
13	In the study of thermodynamics, which gas is considered as the working substance	A. real gas B. ideal gas C. any gas may be ideal or real D. none of them
14	A physical system under going forced vibrations is known as	A. Simple harmonic oscillator     B. Compound harmonic oscillator     C. Physical harmonic oscillator

		D. driven harmonic oscillator
5	Galvanometer is a device used for the detection of	A. voltage B. current C. temperature
		D. pressure
	A body of weight 1 N has a kinetic energy of 1 joule when its speed is:	A. 1.46 m sec <sup>-1</sup>
3		B. 2.44 m sec <sup>-1</sup>
		C. 3.42 m sec <sup>-1</sup> D. 4.43 m sec <sup>-1</sup>
		D. 4.43 III sec\sup>-1\/sup>
	A weakly damped system has fairly	A. sharp resonance curve
7		B. flat resonance curve
•	7 modify damped bystom has famy	C. both of them
		D. none of them
		A. V <sub>o</sub> = 1.414
		V <sub>rms</sub>
8	Which one of the following is correct?	B. I <sub>ams</sub> = 1.414
O		I <sub>o</sub>
		C. VO = 10.70 Vrms
		D. Both a and b
	The waves which propagate by the collision of material particles are known as	A. e.m. waves
9		B. mechanical waves
9		C. light waves
		D. microwaves
		A. High pressure and low
		temperatures
	Real gases strictly obey gas law at:	B. Low pressures and high
0		temperatures
		C. High pressures and high
		temperatures
		D. None of these