Physics ECAT Pre Engineering Chapter 11 Heat & Thermodynamics Online Test

Sr	Questions	Answers Choice
1	If water in a closed bottle is taken up to the moon and opened, the water gets	A. Freeze B. Boiled C. Dissociated into O_2 and H_2 D. Evaporated
2	Which of the following is not an example of adiabatic process	A. the rapid escape of air from a burst type B. the rapid expansion and compression of air through which a sound wave is passing C. cloud formation in the atmosphere D. none of them
3	The relationship between Boltzmann constant k with R and N_A is given as:	A. $k = RN_A$ B. $k = R/N_A$ C. $k = NR/N_A$ D. None of these
4	The efficiency of petrol engine is usually not more than 25% to 30% because of	A. friction B. heat losses C. both of them D. none of them
5	At $0°$ K which of the following properties of a gas will be zero?	A. Kinetic energy B. Potential energy C. Vibrational energy D. Density
6	An isochoric process is one which take place at	A. Constant internal energy B. Constant entropy C. Constant volume D. Constant pressure
7	The pressure of gas everywhere inside the vessel will be the same provided the gas is of	A. Non-uniform density B. uniform density C. high density D. low density
8	The earliest heat engine was	A. petrol engine B. diesel engine C. electric engine D. steam engine
9	Truth of kinetic energy is confirmed by:	A. Diffusion of gases B. Brownian motion C. Both A and B D. None of these
10	Average KE of a gas molecule has:	A. Direct relation with absolute temperature and inverse relation with pressure B. Direction relation with both absolute temperature and pressure C. Inverse relation with both absolute temperature and pressure D. None of these
11	The percentage of available heat energy converted into work by a diesel engine is roughly	A. 35 %` B. 40 % C. 35 - 40 % D. 25 %
12	In an adiabatic process the work is done at the expense of the	A. energy supplied to the system B. energy gained from the surroundings C. internal energy D. none of them
13	The process which is carried out at constant temperature is known as	A. adiabatic process B. isothermal process C. isochoric process D. none of them
14	10 c.c. each of oxygen and hydrogen are kept in separate flasks. Then which of the following relations is correct?	A. Each have same number of molecules B. Don't have same number of molecules C. Can't be predicted D. N

15	Absolute zero is considered as that temperature at which:	A. All liquid become gases B. All gases become liquid C. Water freezes D. None of these
16	A process is a reversible process, if the entropy of the system	A. increases B. decreases C. remains constant D. none of them
17	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
18	A succession of events which bring the system back to its initial condition is called	A. reversible process B. irreversible process C. a cycle D. none of them
19	If a system undergoes a natural process it will go in the direction that causes the entropy of the system plus the environment to increase, this is another statement of	A. second law thermodynamics B. first law of thermodynamics C. third law of thermodynamics D. none of them
20	At what temperature the adiabatic change is equivalent to the isothermal change?	A. Zero degree Celsius B. Zero Kelvin C. Critical temperature D. Above critical temperature
21	The value of E_0 in coulomb's law is:	A. $9 \times 10^9 \, Nm^2C^{-2}$ B. $8.85 \times 10^{-12} C^2 N^{-1} m^{-2}$ C. $8.85 \times 10^{-12} Nm^2C^{-2}$ D. $9 \times 10^9 C^2 N^{-1} m^{-2}$
22	A typical four stroke petrol engine undergoes how many successive processes in each cycle	A. one B. two C. three D. four
23	The work done on the system by the environment is considered as	A. positive B. negative C. zero D. any one of them
24	When the temperature of source and sink of a heat engine become equal entropy change will be	A. Zero B. Max C. Min D. -ve
25	Internal energy is the sum of all the forms of	A. K.E B. P.E C. both of them D. none of them
26	The volume of given mass of a gas will be doubled at atmosphere pressure if the temperature of the gas is changed from 150°C to	A. 300°C B. 573°C C. 600°C D. 743°C
27	The behaviour of gases is well accounted by the kinetic theory based on	A. microscopic approach B. macroscopic approach C. both of them D. none of them
28	Sadi carnot described an ideal heat engine in	A. 1820 B. 1840 C. 1860 D. 1880

A. initial entropy

29	Which quantity is important in stating the entropy of the system	A. initial entropy B. final entropy C. change in entropy D. none of them
30	The internal energy of a system does not depend upon the	A. initial state of the system B. final state of the system C. path D. none of them
31	The highest efficiency of a heat engine whose low temperature is 17°C and the high temperature is 200°C is	A. 70% B. 100% C. 35% D. 38%
32	First law of thermodynamic is special case of	A. Law of conservation of energy B. Charle's law C. Law of conservation of mass D. Boyle's law
33	On the power stroke, a spark fires the mixtures causing a rapid increase in pressure and temperature and the burning mixture expands	A. adiabatically B. isothermally C. isochorically D. isobarically
34	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
35	The curve representing an isothermal process is called	A. adiabat B. isotherm C. fixed temperature D. none of them
36	First law of thermodynamics tells us that heat energy can be converted into equivalent amount of work, but it is silent about	A. how heat is absorbed B. how heat extracted C. how this conversion takes place D. none of them
37	No spark plug is needed in	A. petrol engine B. diesel engine C. both of them D. none of them
38	R.M.S velocity of a particle is V at pressure P. If pressure increases by two times, then R.M.S velocity becomes	A. 2V B. 3V C. 0.5V D. V
39	The length of a metallic rod is 5 meter at 100°C. The coefficient of cubical expansion of the metal will be	A. 2.0×10^{-5}/°C B. 4.0×10^{-5}/°C C. 6.0×10^{-5}/°C D. 2.33×10^{-5}/°C
40	The percentage of available heat energy converted into work by a petrol engine is roughly	A. 35 % B. 40 % C. 35 to 40 % D. 25 %
41	Gas constant per molecule is called:	A. Universal gas constant B. Stefen's constant C. Boltzmann constant D. Gravitation constant
42	Pressure applied at any point of gas at rest is transmitted equally to all parts of the gas. This is the statement of:	A. Newton's second law B. Pascal's law C. Carnot theorem D. Second law of thermodynamics
43	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
44	When two objects come to common temperature, the body is said to be in:	A. Static equilibrium B. Dynamic equilibrium C. Thermal equilibrium

45	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
46	The heat required to raise the temperature of one mole of the substance through 1 K is called	A. heat capacity B. specific heat capacity C. molar specific heat D. all of them
47	The Boltzman constant has the value	A. 1.38×10^{-23} JK^{-1} B. 1.28×10^{-23} JK^{-1} C. 1.38×10^{-26} JK^{-1} D. 1.28×10^{-26} JK^{-1}
48	We cannot utilize the heat contents of oceans and atmosphere because	A. there is no reservoir at the same temperature B. there is no reservoir at the temperature lower than any one of two C. there is no reservoir at the temperature higher than any one of two D. none of them
49	If the formula PV = nRT, n denotes:	A. Number of molecules per unit volume B. Number of moles C. Number of molecules D. None of these
50	The heat required to raise the temperature of one mole of the gas through 1 K at constant volume is called	A. heat capacity B. specific heat capacity C. molar specific heat D. molar specific heat at constant volume
51	Which of the following does not have the same units:	A. Work B. Heat C. Kinetic energy D. Power
52	A real gas can be approximated to an ideal gas at	A. Low density B. High pressure C. High density D. Low temperature
53	An irreversible heat flow from a hot to cold substances of a system, causes the disorder to	A. decrease B. remains the same C. increase D. any one of them
54	If a liquid is heated in weightlessness, the heat is transmitted through	A. Conduction B. Convection C. Radiation D. Neither, because the liquid cannot be heated in weightlessness
55	During the whole carnot cycle	A. Thermal equilibrium is maintained B. mechanical equilibrium is maintained C. both the thermal and mechanical equilibriumis maintained D. both the thermal and mechanical equilibrium is not maintained
56	The coefficient of linear expansion of iron is 0.000011 per°K. An iron rod is 10 metre long at 27°C. The length of the rod will be decreased by 1.1 mm when the temperature of the rod changes to	A. 0 °C B. 10 °C C. 17 °C D. 20 °C
57	The kinetic energy of one molecule of a gas at normal temperature and pressure will be (k = 8.31 J/mole K) :	A. 1.7×10^{3} J B. 10.2×10^{3} J C. $3..4 \times 10^{3}$ J D. 6.8×10^{3} J
58	The example of irreversible process is	A. slowly liquification B. slowly evaporation C. an explosion

		C. an explosion
		D. all of them
59	A process which can be retraced in exactly reverse order, without producing any change in the surroundings is called	A. reversible process B. irreversible process C. any one of them D. none of them
60	Pressure of a gas at constant volume is proportion to	A. Total energy of gas B. Average P.E to molecules C. Average K.E of molecules D. Total internal energy of gas
61	On the exaust stroke, the outlet values opens. The residual gases are expelled and piston moves	A. outwards B. inwards C. in either way D. none of these
62	The internal energy of an ideal gas system is generally the	A. translational K.E of molecules B. vibrational K.E of molecules C. rotational K.E of molecules D. all of them
63	First law of thermodynamics is consequence of conservation of	A. Work B. Energy C. Heat D. All of these
64	On a cold morning a metal surface will fell colder to touch than a wooden surface, because	A. Metal has high specific heat B. Metal has high thermal conductivity C. Metal has low specific heat D. Metal has low thermal conductivity
65	Good absorbers of heat are	A. Poor emitters B. Non emitters C. Good emitters D. Highly polarized
66	If N is the total number of molecules and V is the volume of the container, then the expression for the pressure of gas is	A. $P = P/V < 1/2 mv^2 >$ B. $P = 2N/V < 1/2 mv^2 >$ C. $P = 2/3 N/V < 1/2 mv^2 >$ D. $P = 2/3 N/V < mv^2 >$
67	In a heat engine, heat is supplied by the	A. cold reservoir B. sink C. hot reservoir D. none of them
68	In an adiabatic expansion, the temperature of the gas	A. increases B. becomes zero C. decreases D. decreases rapidly
69	Adiabatic change occurs when the gas	A. expands B. compressed C. expands or compressed D. expands or compressed rapidly
70	The efficiency of diesel engine is	A. 25% B. 25 - 30% C. 35% D. 35 - 40%
71	Energy gas behaves like an ideal gast at	A. High temperature and low pressure B. Low temperature and high pressure C. Both A and B D. None
72	When heat is added into the system then change in entropy is	A. negative B. positive C. zero D. any one of them
73	Melting point of ice	A. Increases with increasing pressure B. Decreases with increasing pressure C. Is independent of pressure D. Is proportional to pressure
74	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
75	Rate of diffusion is	A. Faster in solids than in liquids and gases B. Faster in liquids than in solids and gases C. Equal to solids, liquids and gases D. Faster in gases than in liquids and

		solids
76	When heat is removed from the system	A. negative B. positive C. zero D. any one of them
77	Specific heat at constant pressure is greater than the specific heat at constant volume because	A. Heat is used up to increase temperature at constant pressure B. Heat is used by gas for expansions purposes at constant pressure C. Heat is use dup to increase internal energy D. The above statement is invalid
78	If a molecule with momentum mv strikes a wall and rebound then the change in momentum will be:	A. -2 mv B. Zero C. 2 mv D. mv
79	The temperature scale approved in SI units is:	A. Celsius scale B. Kelvin scale C. Fehrenheit scale D. None of these
80	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
81	The unit of thermodynamical scale is	A. centigrade B. fahrenheit C. kelvin D. none of them
82	The rate of change of momentum of a molecule is equal to:	A. Pressure B. Work C. Density D. Force
83	The efficiency of carnot engine cannot be 100% or one unless cold reservoir is at	A. 100 K B. 273 K C. 0 K D. -273 K
84	According to the second law, which is must to produce work	A. a source contains a large amount of heat energy B. two sources at the same temperature C. two sources at the different temperatures D. a source contains a small amount of energy
85	If a process cannot be retraced in the backward direction by reversing the controlling factors, it is	A. a reversible process B. an irreversible process C. any one of them D. both of them
86	The absolute temperature for an ideal gas is	A. directly proportional to the rotational K.E of gas molecules B. directly proportional to the vibrational K.E of gas molecules C. directly proportional to the average translational K.E.of gas molecules D. directly proportional to the P.E. of gas molecules
87	Two metal rods A and B have their initial lengths in the ratio 2 : 3 and coefficients of linear expansion in the ratio 4 : 3. When they are heated through same temperature difference the ratio of their linear expansion is	A. 1 : 2 B. 2 : 3 C. 3 : 4 D. 8 : 9
88	A process in which no heat enters or leaves the system is called	A. isochoric process B. isothermal process C. adiabatic process D. none of them
89	If R is gas constant for 1 gram mole, C_p and C_v are specific heat for a solid then	A. $C_p - C_v = R$ B. $C_p - C_v < R$ C. $C_p - C_v = 0$ D. $C_p - C_v > R$
90	The concept of entropy was introduced into the study of thermodynamics in	A. 1856 B. 1865 C. 1656 D. 1685

91	The basis to define a temperature scale that is independent of material properties is provided by	A. carbon cycle B. nitrogen cycle C. Carnot cycle D. irreversible cycle
92	At the constant temperature, if the value of a given mass of a gas is double, then the density of gas becomes:	A. Double B. Remains constant C. Half D. None of these
93	Real gases strictly obey gas law at:	A. High pressure and low temperatures B. Low pressures and high temperatures C. High pressures and high temperatures D. None of these
94	Maximum density of H_2O is at the temperature	A. $32 \, °F$ B. $39.2 \, °F$ C. $42 \, °F$ D. $4 \, °F$
95	An amount of water of mass 20 g at 0°C is mixed with 40 g of water at 10°C. Final temperature of mixture is	A. $-20 \, °C$ B. $6.67 \, °C$ C. $5 \, °C$ D. $0 \, °C$
96	Generally a temperature scale is established by	A. one fixed point B. two fixed point C. three fixed point D. four fixed point
97	The bicycle pump provides a good example of	A. first law of thermodynamics B. second law of thermodynamics C. third law of thermodynamics D. none of them
98	In all natural processes where heat flows from one system to another, there is always a net	A. decrease in entropy B. increase in entropy C. decrease or increase in entropy D. none of them
99	Triple point of water is	A. $273.16 \, °F$ B. 372.16K C. $273.16 \, °F$ D. 273.16
100	At constant volume temperature is increased. Then	A. Collision on walls will be less B. Number of collisions per unit time will increase C. Collision will be in straight lines D. Collision will not change
101	Electromagnetic waves emitted by hot bodies are called:	A. Photoelectrons B. Alpha rays C. Thermal radiation D. None of these
102	The state in which ice, water and vapour coexists in equilibrium is called	A. zero degree celsius B. zero degree fahrenheit C. absolute zero D. 373 K
103	The only significant motion possessed by the mono-atomic gas represented is:	A. Translatory B. Rotatory C. Vibratory D. None of these
104	Amount of heat required to raise the temperature of a body through 1 K is called its	A. Specific heat B. Water equivalent

104	Amount of heat required to raise the temperature of a body through 1 K is called its	C. Thermal capacity D. Entropy
105	A carnot cycle consists of	A. One step B. two step C. three steps D. four steps
106	In case of an ideal gas, the P.E associated with its molecule is	A. maximum B. zero C. minimum D. not fixed
107	Tick the correct pair when M denotes the molecular mass and other symbols carry usual meanings:	A. $N = nN_A m = MN_A$ B. $n = N N_A$, $M = mN_A$ C. $M = N_A/N$, $N_A= m/n$ D. $N = nN_A$, $M = mN_A$
108	For making cooking utensils, which of the following pairs of properties is most suited?	A. Low specific heat and high conductivity B. Low specific heat and low conductivity C. High specific heat and high conductivity D. High specific heat and low conductivity
109	If the distance between two charges is doubled, the force between them will become:	A. Double B. Half C. Three times D. One fourth E. One third
110	On the compression stroke of the petrol engine, the inlet value is closed and the mixture is compressed	A. adiabatically B. isothermally C. isochorcally D. isobarically
111	Absolute temperature can be calculated by	A. Means squares velocity B. Motion of the molecule C. Both A and B D. None of these
112	Heat travels through vacuum by	A. Conduction B. Convection C. Radiation D. Both A and B
113	A gas is compressed adiabatically till its temperature is double. The ratio of its final volume to initial volume will be	A. 1/2 B. More than 1/2 C. Less than 1/2 D. Between 1 and 2
114	The disorder in the system increases due to the	A. removal of heat B. addition of heat C. removal or addition of heat D. none of them
115	At absolute temperature, the kinetic energy of the molecules	A. Becomes zero B. Becomes maximum C. Becomes minimum D. Remain constant
116	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
117	The temperature of gas is produced by	A. At potential energy of its molecules B. The kinetic energy of its molecules C. The attractive force between its molecules D. The repulsive force between its molecules
118	Rice takes longest to cook	A. In a submarine 100 m below the surface of the sea B. At sea level C. At Murree D. At Mount Everest
119	Hotness and coldness of an object is represented in terms:	A. Heat B. Temperature C. Chemical energy D. None of these
120	For the working of a heat engine, there must be	A. a source of heat at high temperature B. a sink at low temperature C. both of them

D. none of them

121	The work done by the system on its environment is considered as	A. positive B. negative C. zero D. any one of them
122	When two objects are rubbed together, their internal energy	A. remains same B. decreases C. remains the same then decreases D. increases
123	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
124	Pressure exerted by a gas is	A. Independent of density of the gas B. Inversely proportional to the density of the gas C. Directly proportional to the square of the density of the gas D. Directly proportional to the density of the gas
125	At constant temperature, if the density of the gas is increased, its pressure will:	A. One kg of a substance B. Unit volume of a substance C. One mole of a substance D. None of these
126	Which of the following is not thermo dynamical function?	A. Enthalpy B. Work done C. Gibb's energy D. Internal energy
127	In thermodynamics, internal energy is the function of	A. temperature B. pressure C. state D. none of them
128	The volume of universal gas constant R is:	A. 8.314 J/K mole K B. 8314 J/K mole K C. 8.314 J/mole K D. None of these
129	The curve representing an adiabatic process is called	A. isotherm B. adiabat C. adiable D. none of them
130	What temperature is the same on Celsius scale as well as on Fahrenheit scale?	A. 32$°C$ B. -32$°C$ C. -40$°C$ D. -212$°C$
131	In which process the condition for the application of Boyle's law on the gas is fulfilled	A. isochoric process B. adiabatic process C. isothermal process D. none of them
132	A heat engine is that which converts	A. mechanical energy into thermal energy B. thermal energy into mechanical energy C. K.E into potential energy D. heat energy into light energy
133	One mole of any substance contain	A. same number of molecules B. different number of molecules C. may be same or different D. none of them
134	At constant temperature, on increasing the pressure of a gas by 5%, its volume. The final temperature of the gas will be	A. 81 K B. 355 K C. 627 K D. 627$°C$
135	Boyle's law is applicable in	A. Isochoric process B. Isothermal process C. Isobaric process D. Isotonic process

136	Efficiency of carnot engine is independent of the	A. temperature of sink B. temperature of source C. nature of the working substances D. none of them
137	The product of the pressure and volume of an ideal gas is	A. A constant B. Approximately equal to the universal gas constant C. Directly proportional to its temperature D. Inversely proportional to its temperature
138	In the reverse process, the working substance passes through the same stages as in the direct process and	A. thermal effects at each stage are exactly reversed B. mechanical effects at each stage are exactly reversed C. thermal and mechanical effects at each stage remain the same D. thermal and mechanical effects at each stage are exactly reversed
139	The nature of thermal radiation is similar to:	A. Ultraviolet rays B. Light rays C. Both of them D. None of these
140	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
141	In the formula $P = N_0 KT$, N_0 denotes:	A. Number of molecules per unit per volume B. Number of moles C. Number of molecules D. None of these
142	Pressure may be define as _____ per second per unit area:	A. Change in force B. Change in momentum C. Change in energy D. Work done
143	The ideal gas law is	A. $P = nRT$ B. $V = nRT$ C. $PV = RT$ D. $PV = nRT$
144	The volume of a gas will be double of what it is at 0°C (pressure remaining constant) at	A. 546 K B. 273 K C. 546°C D. 273°C
145	According to kinetic theory of gases, molecules of a gas behave like	A. Inelastic spheres B. Perfectly elastic rigid sphere C. Perfectly elastic non-rigid spheres D. Inelastic non-rigid spheres
146	A reversible cycle is the one in which	A. some of the changes are reversible B. all of the changes are reversible C. all of the changes are irreversible D. none of them
147	Which of the following is a state variable	A. entropy B. pressure C. volume D. all of them
148	Generally a temperature scale is established by using certain physical properties of a material which varies	A. nonlinearly with temperature B. linearly with temperature C. either of them D. none of them
149	If denotes the total number of molecules in cubic vessel such that m is mass of each milecule and I is length of each side of vessel, then mN/I^3 gives the:	A. Force B. Density C. Work done D. Pressure
150	Since the absolute scale is independent of the property of the working substance, hence, can be applied at	A. very high temperature B. very low temperature C. any one of them D. none of them
151	In the theory of dimensional analysis, heat may be properly represented by:	A. ML^2T^{-2} B. MT^{-2}

		C. $ML^{-1}T^{-1}$ D. None of these
152	The example of reversible process is	A. an explosion B. changes occur suddenly C. slow compression of a gas D. all of them
153	A diatomic gas molecule has	A. translational energy B. rotaional energy C. vibrational energy D. all of them
154	Which of the following is not an assumption of kinetic energy	A. a finite volume of gas consists of very large number of molecules B. the gas molecules are in random motion C. collision between the gas molecules are inelastic D. the size of the gas molecules is much smaller than the separation between molecules
155	On colliding in a closed container, the gas molecules	A. Transfer momentum to the walls B. Momentum becomes zero C. Move in opposite directions D. Perform Brownian motion
156	The number of translation degress of freedom for a diatomic gas is	A. 2 B. 3 C. 5 D. 6
157	Brownian motion increases due to	A. Increase in size of Brownian particle B. Increase in temperature of medium C. Increase in density of medium D. Increase in viscosity of medium
158	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
159	In an ideal gas, the molecules have:	A. Kinetic energy only B. Potential energy only C. Both KE and PE D. None of these
160	The second law of thermodynamics is concerned with the circumstances in which	A. heat can be converted into work B. direction of flow of heat C. none of them D. both of them
161	The motion of molecules in gases is:	A. Orderly B. Random C. Circular D. All of these
162	If 42 J heat is transferred to the system and the work done by the system is 32 J then what will be the change in internal energy	A. 0 J B. 2 J C. 5 J D. 10 J
163	The pressure exerted by the gas is	A. directly proportional to the P.E B. inversely proportional to the P.E C. inversely proportional to the K.E D. directly proportional to the K.E
164	We can express the work in term of	A. directly measurable variables B. indirectly measurable variables C. either of them D. both of them
165	Heat required to raise the temperature of one mole of a gas through 1 K at constant pressure is called	A. heat capacity B. specific heat capacity C. specific heat at constant volume D. specific heat at constant pressure
166	Carnot heat engine only used	A. isothermal processes B. adiabatic processes C. both of them D. none of them
167	The absolute temperature of the tripple point of water is	A. 100°C B. 4°C C. 373 K D. 273.16 K

| 168 | If the ratio of densities of two gases is 1:4, then the ratio of their rates of diffusion into one another is | A. 2 : 1
B. 4 : 1
C. 1 : 4
D. 3 : 4 |