KINETIC THEORY

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General Instructions: Answer all the questions. If you are unable to answer any question, go through the page number that is given against that particular question in the text book. You can find the answer.
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Test Paper-I

MAX MARKS: 30   **TIME: 90Mts**

1	Who proposed atomic theory? Which laws were explained by him using this theory?	P319	2
2	State law of definite proportions & multiple proportions.	P319	2
3	Give the propositions of Dalton's theory.	P319	2
4	State Gay Lussac's law. How does it vary from Avogadro's law?	P319	2
5	What is the other name of Dalton's atomic theory? Why is it called so?	P319	2
6	What is the size of an atom? In solids at what distance the atoms are spaced apart? What enables the liquid to flow?	P319	2
7	What is meant by mean free path? What is the order of the mean free path in gases	P319	2
8	Give the differences gases and solids	P319	2
9	Why properties of gases are easier to understand than those of solids and liquids?	P320	1
10	State Avogadro's Hypothesis? Also state at what conditions a Real gas approach ideal gas behaviour.	P320	2
11	Define one mole. What is the value of gas constant in SI system?	P320	2
12	What is an Ideal gas? Give the statements of the following laws		
	a. Boyle's law	P320	3
	b. Charles' Law	&321	
	Give the formula to find the following values		
	a. Number of moles		
	b. Boltzmann constant		
13	What is meant by Partial Pressure exerted by a gas? Also state Dalton's Law of Partial Pressures	P321	2
14	A vessel contains two non-reactive gases: neon (monoatomic) and oxygen (diatomic). The ratio of their partial pressures is 3:2. Estimate the ratio of (i)	P322	3

number of molecules and (ii) mass density of neon and oxygen in the vessel.

Atomic mass of Ne= 20.0u and molecular mass of O_2 =32 u.

15   Give the postulates of kinetic theory of gases.   P323   2