

HW

A: Objective Questions -

1. Write true or false for each statement :-

- a) The molecules of each substance are identical. False
- b) The inter-molecular forces are effective at all distances between the two molecules. False
- c) The molecules in a substance are in random motion. True
- d) In a gas, the molecules can move anywhere in space. True
- e) Liquids are less ~~viscous~~ viscous than gases. False

2. Fill in the blanks :-

- a) All molecules of a substance are identical identical.
- b) The inter-molecular spacing is least in solids, more in liquids and still more in gases.
- c) The molecular motion in liquid and gas is in zig-zag path.
- d) In a solid, the molecules vibrate on either side but they remain at their fixed positions.
- e) The inter-molecular forces are the weakest in gases.
- f) A solid exerts pressure downwards on its base.
- g) Gases are least dense.
- h) Solids are most rigid.

3. Select the correct alternative:

a) The diameter of a molecule is approximately:

Ans - iii) 10^{-10} m

b) The intermolecular forces are strongest in:

Ans - i) solids

c) The molecules:

Ans - iii) in a liquid, move within its boundary.

d) Solids:

Ans - i) more dense

e) The inter-molecular forces in liquids are:

Ans - iii) weaker than in solids.

4. Match the following columns :-

Column A

Column B

a) A molecule is composed of

i) does not exist free in nature

b) Ice, water and water vapour.

ii) can vibrate only up to about 10^{-10} m from their mean position. (e)

c) An atom

iii) atoms. (a)

d) Gases

iv) are the three states of water. (b)

e) The molecules of a solid

do not occupy space. (d)