

chapter No. 16 Water

① Boiling point of water is =

- (a) 101°C (b) 110°C (c) 100°C (d) 200°C

→ (c) 100°C

② _____ is the process by which a liquid changes to vapour.

- (a) Boiling (b) melting (c) Evaporation (d) Freezing

→ (c) Evaporation

③ The freezing point of water is =

- (a) 5°C (b) 0°C (c) 10°C (d) 4°C

→ (b) 0°C

④ _____ of a liquid is the temperature at which it freezes to solid at normal atmospheric pressure.

- (a) melting point (b) boiling point

- (c) freezing point (d) None of above

→ (c) Freezing point

⑤ When water converted to ice, its volume increase & the density =

- (a) increase (b) decrease

→ (b) decrease.

⑥ Water is the _____

→ universal solvent.

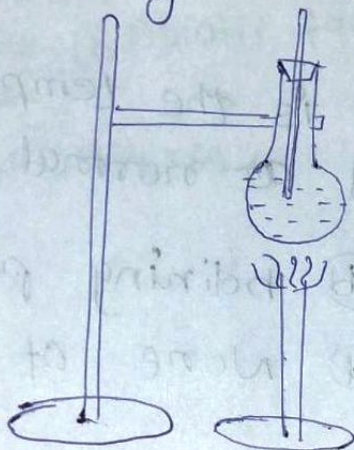
⑦ pure water has neither the properties of acid nor those of alkali. Hence it is called =

- (a) universal solvent (b) neutral solvent

→ (b) neutral solvent.

⑦ Explain the Boiling point of water?

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- Take three quarters of water in a round bottomed flask.
 - Arrange a thermometer in such a way that it is kept immersed in water inside the flask.
 - Record the initial thermometer reading.
 - Heat the water in the flask.
 - Record the temp. from the thermometer at regular intervals of time.
- The temp at which a liquid boils at normal atmospheric pressure is its boiling point. The boiling point of water is 100°C .



water exists in the liquid form at temp between 0°C and 100°C .
But water changes to vapour at any temp. upto 100°C .

Evaporation is the process by which a liquid changes to vapour.

Q.10. Why water is universal solvent?

- Dissolve the following substances in water taken in different glass tumbler.
 - a. Table salts
 - b. Sugar
 - c. Vinegar.
- Stir each solⁿ well using separate spoon. Take small amounts of each solⁿ & taste it.
- When substances dissolve in water they acquire the property of the substances dissolved.
- Pure water has neither the properties of acid nor those of alkali. Hence it is called neutral solvent.
- Perform another experiment.
- Add coloured inks, coloured salts to water taken in different beakers & mix them well. Observe the colour change in water.
- Water can acquire the colour of any coloured substance added to it.
- Identify situation in which the above characteristic of water is made of use.
- Since water can dissolve various substances & is widely used for preparing solution it is a ~~etc~~ universal solvent.

⑧ What is Surface Tension ?

→ Surface tension acts in such way so as to reduce the surface area of a liquid. For the definite mass of a substance, surface area is minimum for spherical shape. That is why liquid droplets assume spherical shape.

⑨ Explain soft water & hard water.

→ The water in which soap does not lather easily is called hard water. Here the hardness of water is due to the presence of dissolved salts of calcium & magnesium. Water in which soap gives lather readily is called soft water.

- The hard water is formed due to the dissolution of the salts of calcium & magnesium present in soil & rocks as rain water seeps through the soil.

- Hard water does not give easy lather with soap because the salts of calcium & magnesium reacts with soap to form insoluble salts.