



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Sub: Physical Science

Class: 8

Date: 13.03.21

Duration: 40 min

Worksheet Solutions 17

Full Marks: 15

## HEAT/ THERMAL EXPANSION OF LIQUIDS AND GASES

Choose the Correct options:

- The only expansion that takes place in a general liquid is  
Ans (a) Linear (b) Superficial (c) **Cubical** (d) Anomalous
- Compared to solids, for the same rise in temperature, liquids expand  
Ans (a) **more** (b) less (c) equally (d) none
- Water shows anomalous behaviour between  
Ans (a) **0 and 4 °C** (b) 10 and 14 °C (c) 14.5 and 15.5 °C (d) 0 and -4 °C
- Which of the following expands the most  
Ans (a) Water (b) paraffin (c) **benzene** (d) alcohol
- The expansion of liquid observed in an experiment includes  
Ans (a) The expansion of the containing vessel (b) Conduction (c) Temperature Change (d) **All of these**
- Compared to the observed expansion in a liquid, the actual expansion is  
Ans (a) **more** (b) less (c) equally (d) none
- Which of the following expands the most  
Ans (a) Hydrogen (b) Oxygen (c) Nitrogen (d) **All expand equally**
- Compared to liquids gases expand  
Ans (a) **more** (b) less (c) equally (d) none
- Anomalous expansion of water leads to  
Ans (a) **Floating of iceberg** (b) Formation of snow (c) Melting of ice (d) None of these
- When a chapatti is heated it swells because of thermal expansion of  
Ans (a) solid (b) liquid (c) gas (d) **Both (a) and (c)**
- Water is cooled from 4 °C to 0 °C. It shows  
Ans (a) **Expansion** (b) Contraction (c) Cavitation (d) Crystallization
- Water expands when heated above  
Ans (a) -4 °C (b) 0 °C (c) **4 °C** (d) 14.5 °C
- Rise of liquid level of a container on heating depends on  
Ans (a) Container material (b) Liquid (c) Temperature Change (d) **All of these**
- What is the order of magnitude of expansion of liquid  
Ans (a)  $10^{-6} \text{ } ^\circ\text{C}^{-1}$  (b)  **$10^{-4} \text{ } ^\circ\text{C}^{-1}$**  (c)  $10^{-5} \text{ } ^\circ\text{C}^{-1}$  (d)  $10^{-2} \text{ } ^\circ\text{C}^{-1}$
- The coefficient of thermal expansion of all gases is  
Ans (a) **same** (b) different (c) variable (d) None of these