

Chapter: 5

Q.1 A) Choose the correct alternative and rewrite the sentence (1)

- 1) Water expands on reducing its temperature below °C.
a. 0 b. 4 c. 8 d. 12

B) Answer the following questions. (2)

i) **Find co-related terms**

Melting point of ice : 0°C:: Boiling point of water:

ii) **State true or false.**

Specific heat capacity in CGS is measured in cal/g°C.

Q.2 A) Give scientific reason. (Any one) (2)

- 1) Even if boiling water is constantly heated, its temperature does not rise.
2) The outer surface of the beaker containing ice cubes becomes wet in a short while.

B) Answer the following questions. (Any two) (4)

i) **Distinguish between**

Specific heat and Specific Latent heat

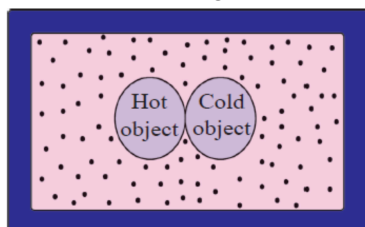
ii) **Write Short Notes on**

Write short note on Relative humidity

- 3) Equal heat is given to two objects A and B of mass 1g. Temperature of A increases by 3°C and B by 5°C. Which object has more specific heat? And by what factor?

Q.3 Answer the following questions. (Any two) (6)

- 1) Observe the diagram and answer the questions.



- Which principle can be explained by given diagram?
 - State the principle.
 - Why both bodies are kept in a isolated box?
- 2) 1. What can be studied with Hope's apparatus?
2. What mixture is used for this experiment?
3. Draw graph of time against temperature for Hope's apparatus experiment.

3) Read the statements given below. Identify and write the concept upon which the given statement is based.

- i. Fishes survive under cold freezing water
- ii. Ice melts due to heating but temperature does not rises.
- iii. Temperature of liquid rises but state does not change.
- iv. Ravi is feeling that the air is humid, what would be the relative humidity.
- v. Water is heated, it changes to steam but temperature remains constant.
- vi. Two bodies with different temperatures are kept in a heat resistant box. After some time they have same temperatures. Which principle is followed.

Q.4 Answer the following questions. (Any one)

(5)

- 1)**
 - i. What are the different ways of heat transfer ?
 - ii. Is the concept of latent heat applicable during transformation of gaseous phase to liquid phase and from liquid phase to solid phase ?
 - iii. Where does the latent heat go during these transformations ?
 - iv. We feel that some objects are cold and some are hot. Is this feeling related in some way to our body temperature ?
- 2)**
 - i. What is the meaning of the term 'humidity'?
 - ii. Write the formula for percentage relative humidity.
 - iii. Write the units of heat in CGS and MKS system.
 - iv. What are the units of specific heat capacity ?
 - v. How does heat get transferred ?

