



SHIKSHA CLASSES

Subject : Science -I

Question Paper

Total Marks : 20

Class : X

5. Heat

Time : 1 Hour

Q.1 A : Choose the correct alternative :

2

- 1) The amount of water vapour in air is determined in terms of its
 - a) Humidity
 - b) Rancidity
 - c) Fluidity
 - d) None of the above.
- 2) During transformation of liquid phase to solid phase the latent heat is
 - a) Solidification
 - b) Fusion.
 - c) Vaporization
 - d) None of the above

B. Solve the following question. (Any One).

1

- 1) State whether the following statement is true or false
During transition of solid phase to liquid temperature of object increases.
- 2) Complete the analogy
SI unit of heat : _____ : : CGS unit of heat : _____
- 3) Define one cal heat.

Q. 2 : A) Give scientific reason. (Any One)

2

- 1) Aquatic plants and animals can survive even when atmospheric temperature goes below 0°C .
- 2) During winter season a white trail at back of flying plane is observed in a clear sky.

Q. 2 : B) Solve the following questions. (Any Two)

4

- 1) How much heat energy is necessary to raise the temperature of 5kg of water from 20°C to 100°C ?
- 2) Write down the units of specific heat capacity.
- 3) What is relative humidity & % relative humidity?
- 4) What is the dew point temperature?

Q. 3 : Solve the following questions. (Any Two)

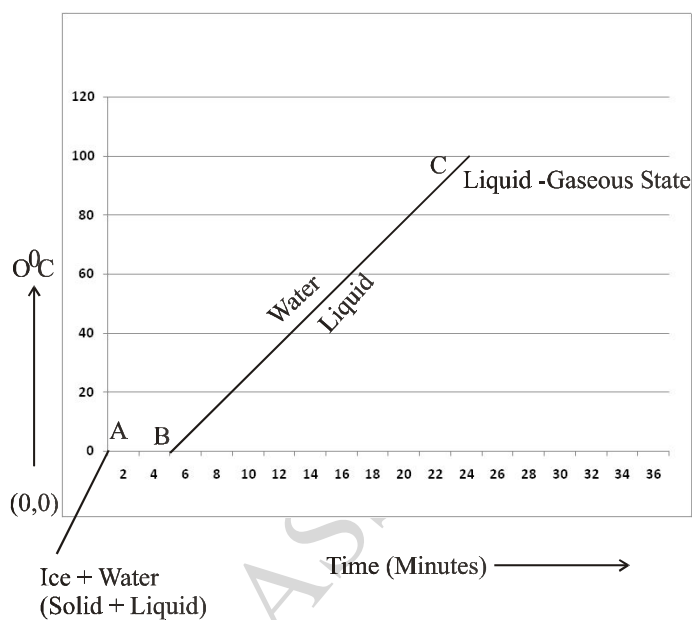
6

- 1) Explain regelation.
- 2) Explain the role of latent heat in change of state of a substance.
- 3) A Calorimeter has mass 100 g and specific heat $0.1 \text{ kcal/kg}^\circ\text{C}$. It contains 250 g of liquid at 30°C having specific heat of $0.4 \text{ kcal/kg}^\circ\text{C}$. If we drop a piece of ice of mass 10g at 0°C what will be the temperature of mixture?
- 4) Which principle is used to measure specific heat capacity of a substance?

Q. 4 : Solve the following question. (Any One)

5

- 1) Explain the following temperature v/s time graph.



- 2) What is meant by specific heat capacity? How will you prove experimentally that different substances have different specific heat capacities?

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