Heat

1. Why do we get dew on the surface of a cold soft drink bottle kept in open air? (AS1)

2. Your friend is asked to differentiate between evaporation and boiling. What questions could you ask to make him to know the differences between evaporation and boiling? (AS2)

3. Water can evaporate at any temperature Explain with an example? (AS3)

4. What role does specific heat play in keeping a watermelon cool for a long time after removi it from a fridge on a hot day? (AS7)

5. Equal amounts of water are kept in a cap and in a dish. Which will evaporate faster? Why?

6. Why specific heat is different for different substances? Explain (AS1)

7. If you are chilly outside the shower stall, why do you feel warm after the bath if you stay in the bathroom? (AS7)

8. Using the concept of evaporation explain why does pant during hot summer days? (AS1)

9. If 50g of water at 20oC temperature and 50 g of water 40oC temperature are mixed, what is the final temperature of the mixture of? (AS1)

10. What do you observe in the surroundings in terms of cooling or heating when water vapou is getting condensed (AS1)

11. Convert following into kelvin scale (AS1) (i) 20oC (ii) 27oC (iii) −273oC

12. How do you appreciate the role of the higher specific heat of water in stabilizing atmospher temperature during winter and summer seasons? (AS6)

13. Answer these (AS1)
(a) How much energy is transferred when 1 g. of boiling water at 100oC condenses to water at 100oC?
(b) How much energy is transferred when 1 g. of boiling water 100oC cools to water at 0oC?
(c) How much energy is released or absorbed when 1 g. of water at 0oC freezes to ice at 0oC?
(d) How much energy released or absorbed when 1 g. of steam at 100oC cools to ice at 0oC?

14. Suppose that 1 L of water is heated for a certain time to rise its temperature for 2oC. If 2L o water is heated for the same time, how much of its temperature would rise?(AS7)Type your tex

1. Which of the following is a warming process [ ]
a) Evaporation b) condensation c) boiling d) all the above

2. Melting is a process in which solid phase changes to [ ]
a) liquid phase b) liquid phase at constant temperature
c) gaseous phase d) Gaseous phase at constaint temperature

3. Three bodies A, B and C are in thermal equilibrium. The temperature of B is 45oC. then the temperature of C is [ ]
a) 45oC b) 50oC c) 40oC d) any temperature

4. The temperature of a steel rod is 330K. Its temperature in oC is [ ]
a) 55oC b) 57oC c) 59oC d) 53oC

5. Specific heat S = [ ]
a) Q/ΔT b) QΔT c) Q/mΔT d) mΔT/Q

6. Boiling point of water at normal atmospheric pressure is [ ]
a) 0oC b) 100oC c) 110oC d) -5oC

7. When ice melts, its temperature [ ]
a) remains constant b) increases
c) decreases d) first decrease and then increase