PHYSICS: HEAT AND THERMAL PROPERTIES

1. A group of s2 students went for a swimming lesson at Makutano motel and the following observations were noticed by one of the students;

- The metallic guards on the either sides of the pool were too cold when touched
- The water in the pool was cold yet it was a sunny day
- The water taken by the people is in plastic bottles not glassy ones

As a s4 student help this student and the fellows to know the physics behind these phenomena. (10marks)

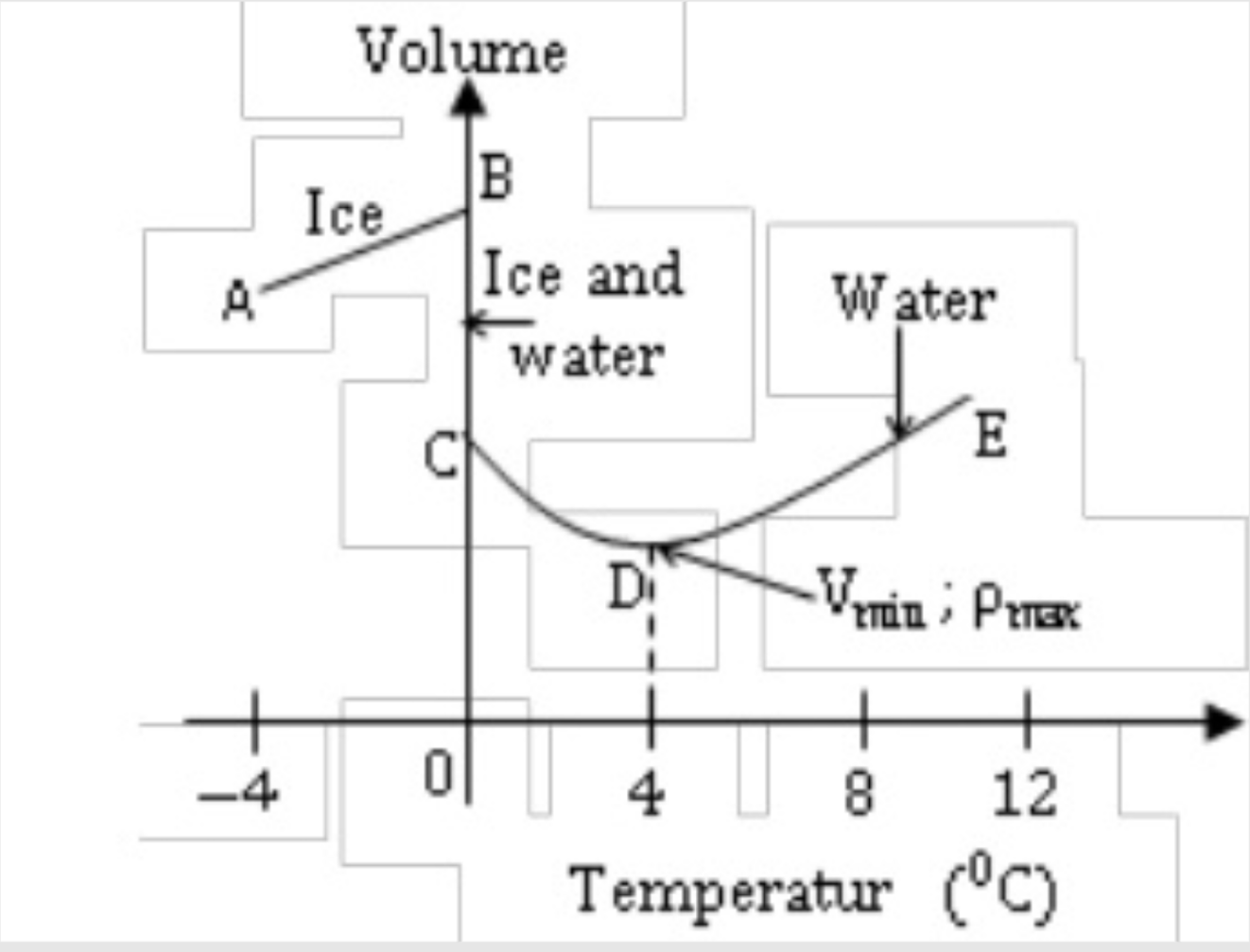
2. Jonathan a father with two sons one named Charles and the other John are living in one of the slums of Kazo. One morning, John woke not feeling well and was rushed to the nearest health centre for medical check up on reaching there, malaria tests were done on him and the deduced that he was suffering from it. He was given some pills to take in the evening. Charles escorted his brother back home, their mother Mrs. Ekanya told them to first take a bath before they do any other thing.

In the bathroom both the brothers poured on themselves cold water John felt much coldness compared to that of his brother charles. Using knowledge from thermometry explain to them what

happened.

3. A literature teacher entered a s3 class and found an illustration drawn by a physics teacher who had a lesson before him.

Help the teacher to know what each letter represents and the physics behind them.



The table below shows capacities of some common substances. Use it to answer the questions that follow.

(a) Explain with reasons the importance of high specific heat capacity of water.

(b) With the help of a formulae differetiate between h

Substance	Specific Heat Capacity ($JKg^{-1}K^{-1}$)
1.Water	4200
2.Ice	2100
3.Aluminium	900
4.Copper	400

heat capacity and specific heat capacity.

(c) "Islands experience much smaller changes of temperature" justify the statement.

5. When a substance changes from one state to another such as from solid to liquid or liquid to gas the temperature remains constant although the heat is supplied. Explain using the particle theory of matter why the temperature remains constant

■■■■ NO BODY WAS BORN A SCIENTIST■■■■■

♡CHARLES DE EXCELLENTO♡