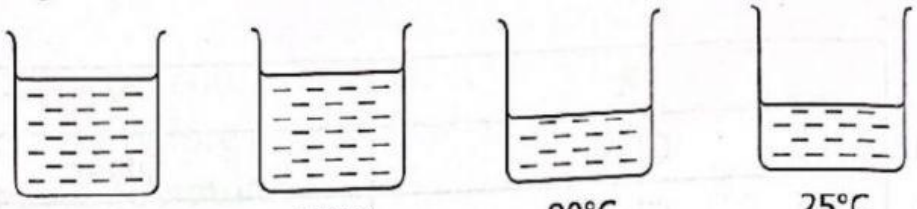
# HEAT AND TEMPERATURE

## I. MULTIPLE CHOICE

1. Study the diagrams below.



25°C
400 ml
Beaker P

80°C
400 ml
Beaker Q

80°C
200 ml
Beaker R

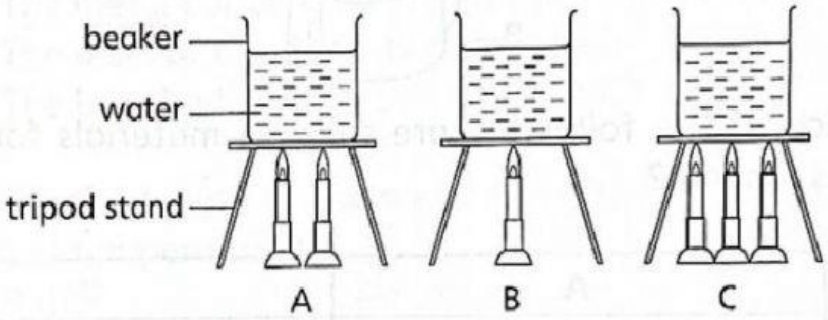
25°C
200 ml
Beaker S

Which beaker contains water with the greatest amount of heat?

(1) Beaker P (2) Beaker Q

(3) Beaker R (4) Beaker S ( )

2. John has three identical beakers containing the same volume of water at the same temperature. He heats the three beakers of water as shown below.



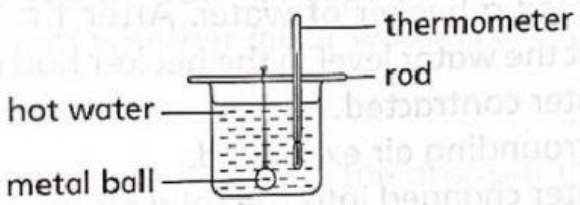

Which of the following arrangements shows the time taken for the water in the beakers to boil from the shortest to the longest correctly?

(1) A, B, C (2) B, A, C

(3) C, A, B (4) C, B, A ( )

LIVEWORKSHEETS

3. A metal ball at room temperature was hung on a rod and lowered into a beaker of hot water as shown below.




Which of the following about the temperatures of the metal ball and the water is correct?

| | Temperature of metal ball | Temperature of water |
|---|---|---|
| (1) | Increased | Decreased |
| (2) | Increased | Increased |
| (3) | Decreased | Decreased |
| (4) | Decreased | Increased |

(  )

4. Samuel placed a carton of milk which was taken out of a refrigerator into a basin of warm water.
What happened to the temperatures of the carton of milk and the water?

| | Temperature of the carton of milk | Temperature of the water |
|---|---|---|
| (1) | Increased | Decreased |
| (2) | Increased | Increased |
| (3) | Decreased | Increased |
| (4) | Decreased | Decreased |

LIVEWORKSHEETS

5 When Helena stepped into an air-conditioned room, she felt cold as _____.

(1) her body lost heat to the surrounding air
(2) the surrounding air in the room had no heat
(3) the surrounding air in the room lost heat to her body
(4) her body gained coldness from the surrounding air in the room ( )

## II. OPEN-ENDED QUESTIONS

1. Study the classification table below.

| Group A | Group B |
|---|---|
| Shadow | Mango |
| Light | Computer |

(a) Which group, A or B, should heat be classified into?

_____

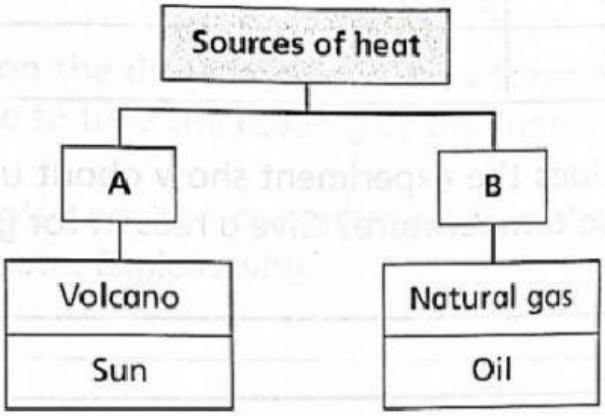
(b) Explain your answer in (a).

_____

_____

LIVEWORKSHEETS

2. Study the classification chart below.




(a) What are suitable headings for A and B?

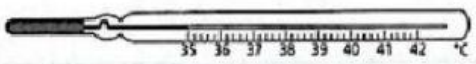
A: _____

B: _____

(b) Which group, A or B, should wood be placed into?

_____

3. The diagram below shows a clinical thermometer.




(a) What is the clinical thermometer used for?

_____

(b) The clinical thermometer is placed into a beaker of boiling water at 100°C. Predict what will happen to the clinical thermometer.

_____

_____

LIVEWORKSHEETS

4. State two differences between heat and temperature.

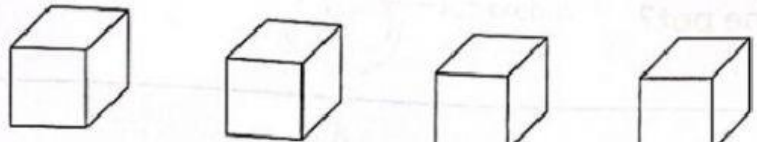
Difference 1: _____

_____

Difference 2: _____

_____

5 Wei Qin has four identical iron blocks at different temperatures as shown below.



30°C
Block P

65°C
Block Q

15°C
Block R

50°C
Block S

(a) Arrange the blocks according to the amount of heat they contain from the lowest to the highest.

_____

(b) Explain your answer in (a).

_____

_____

LIVEWORKSHEETS