

Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Q1.

Solid, liquid and gas are three different states of matter.

- (a) Describe the difference between the solid and gas states, in terms of the arrangement and movement of their particles.

(4)

- (b) What is meant by 'specific latent heat of vaporisation'?

(2)

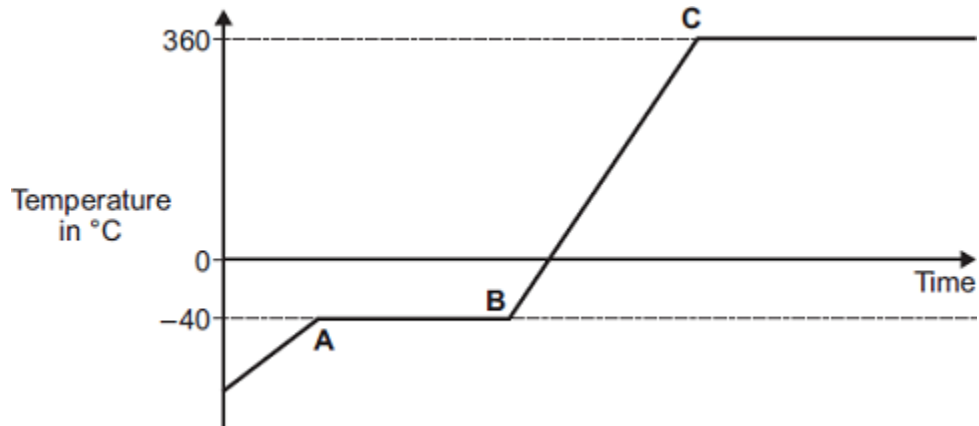
- (c) While a kettle boils, 0.018 kg of water changes to steam.

Calculate the amount of energy required for this change.

Specific latent heat of vaporisation of water = 2.3×10^6 J / kg.

Energy required = _____ J (2)

- (d) The graph shows how temperature varies with time for a substance as it is heated.
The graph is **not** drawn to scale.



Explain what is happening to the substance in sections **AB** and **BC** of the graph.

Section **AB** _____

Section **BC** _____

(4)
(Total 12 marks)

Q2.

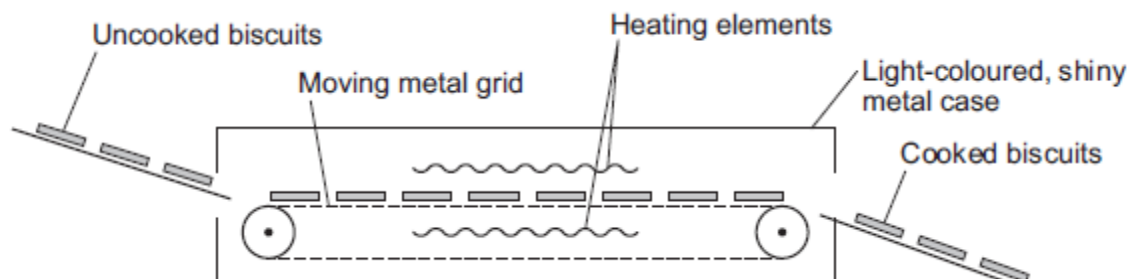
Figure 1 shows one way that biscuit manufacturers cook large quantities of biscuits.

The uncooked biscuits are placed on a moving metal grid.

The biscuits pass between two hot electrical heating elements inside an oven.

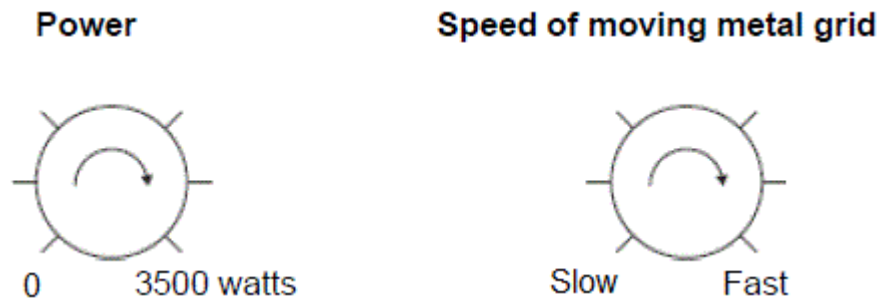
The biscuits turn brown as they cook.

Figure 1



The oven has two control knobs, as shown in **Figure 2**.

Figure 2



- (a) Which type of electromagnetic radiation makes the biscuits turn brown?

(1)

- (b) Suggest **two** ways of cooking the biscuits in this oven, to make them turn browner.

1. _____
2. _____

(2)

- (c) The inside and outside surfaces of the oven are light-coloured and shiny.

Explain why.

(3)

(Total 6 marks)