NAME: ……..……..

SCHOOL:……

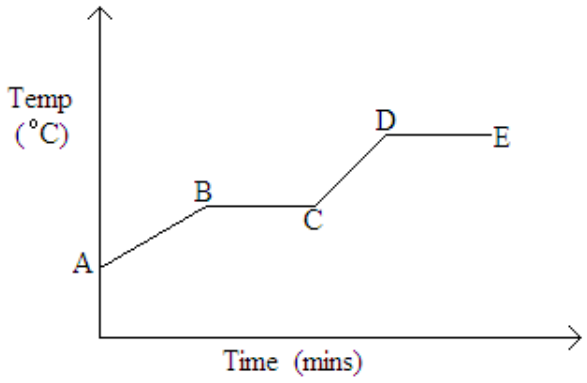
DATE: .....

SIMPLE CLASSIFICATION OF SUBSTANCES

INSTRUCTIONS TO CANDIDATES

*Answer **ALL** questions in this paper in the spaces provided.*

1. **The** curve shown below was obtained when solid naphthalene was heated to boiling.



(a) **Explain** in molecular terms the changes occurring in portions.

(i) AB (1mark)

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……

(ii) DE (1mark)

……

……

(b) **What** is the significance of portion **BC**? (1mark)

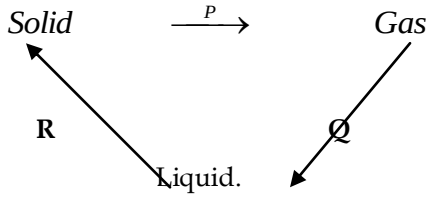
……

……

2. Element **X** contains isotopes with mass number 16 and 18 respectively existing in the ratio 1: 3. **Calculate** the relative atomic mass of **X**.

(2marks)

3. Matter exists in three states which can be related as shown in the diagram below.



(a) **Name** processes: P: ---------- (1mark)

R: ---------- (1mark)

(b) **Explain** whether process **Q** is exothermic or endothermic (1mark)

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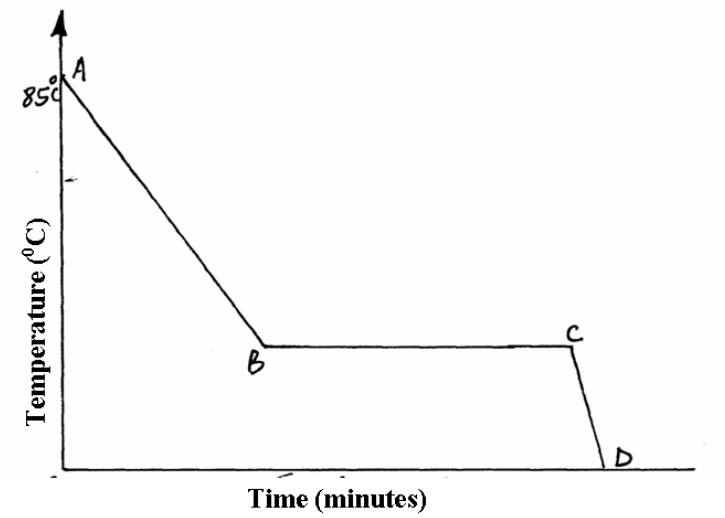
4. A Student in form four placed a thermometer in molten naphthalene at 85^0C and recorded the temperature and time until the naphthalene solidified. From the values obtained, the figure below was drawn.



(a) What name is given to such a figure? (1mk)

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(b) Which part of the figure represents the change of state of naphthalene? (1mk)

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(c) In terms of kinetic theory. Explain what happens to molecules along AB. (1mk)

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