LSF KNOWLEDGEBASE

Name:……..…… **Index No**…….

232/3
PHYSICS
PRACTICAL
PAPER 3

Candidate's Signature:……

Date:……Class ……

LSF Knowledgebase SERIES

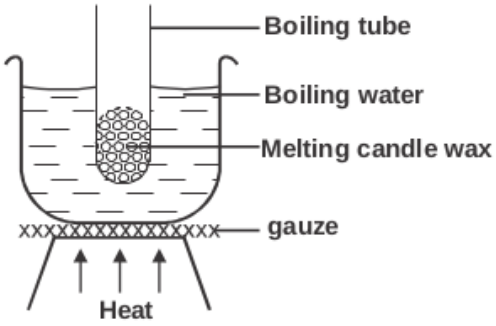
1. You are provided with the following apparatus :

- candle wax
- source of heat
- stop watch
- boiling tube
- thermometer
- cork with a hole or cardboard with hole
- water
- tripod stand
- tube holder

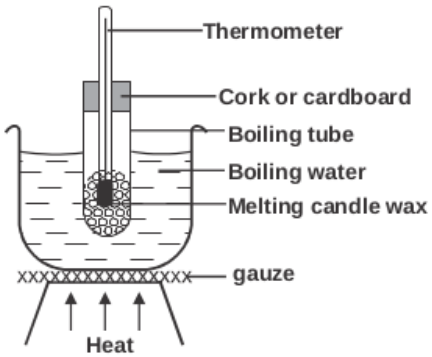
Proceed as follows :

i) Heat the water in the beaker until it starts to boil.

ii) Place some candle wax in the boiling tube and heat the wax indirectly using the boiling water in beaker as shown in figure below.



iii) When the wax has completely melted, continue heating for about two minutes. Meanwhile insert the thermometer in the boiling tube through the hole in cork or cardboard. Adjust the thermometer until the bulb of the thermometer is completely immersed in melted wax.



Continue heating until the thermometer records no further change in temperature. This is the maximum temperature reached.

Record this temperature, as T_{max}.

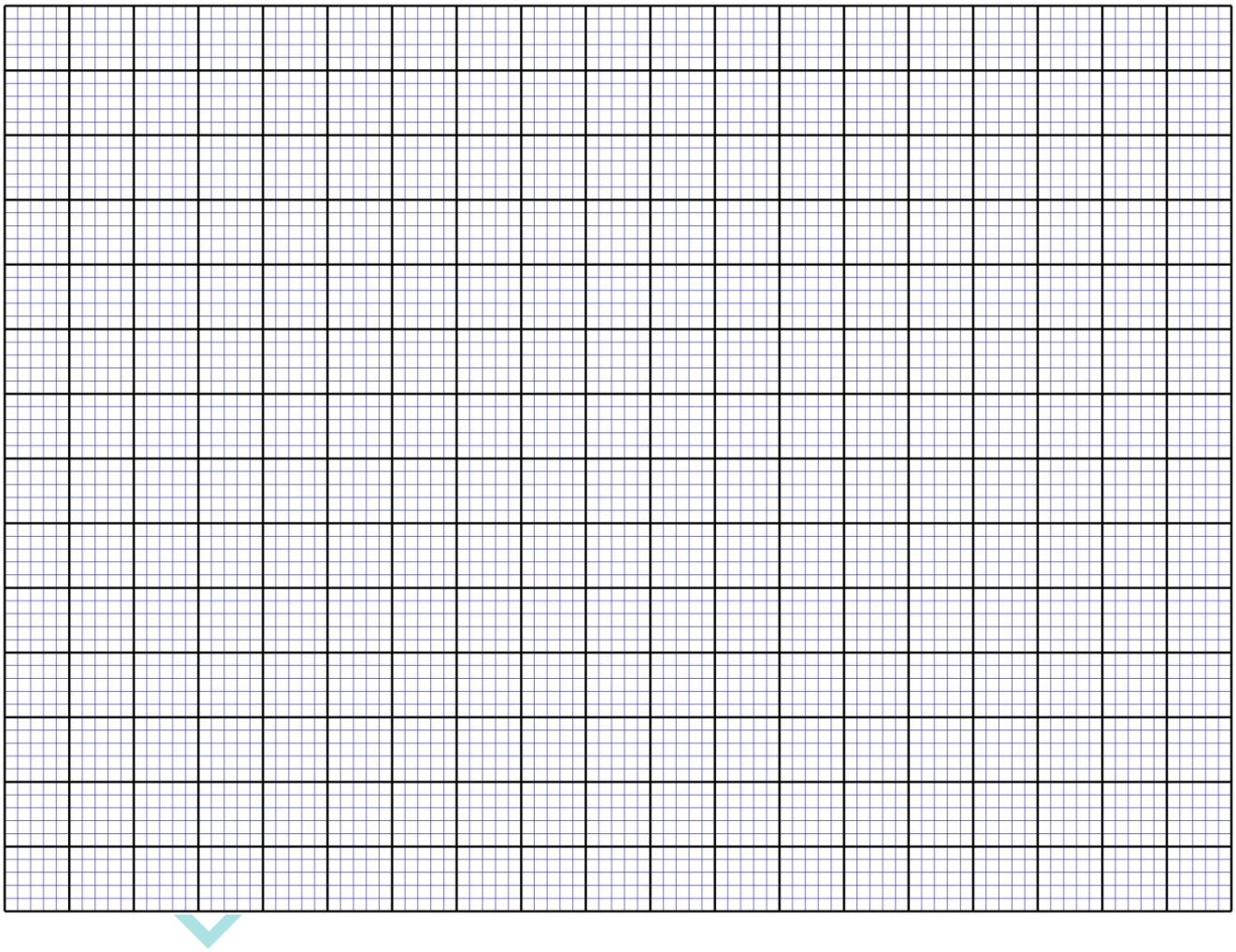
T_{max} = ... ^{o} C (1 mark)

iv) Now remove the boiling tube from the boiling water and simultaneously start the stopwatch. Record the temperature of the cooling wax at intervals of two minutes. Record and complete Table below.

Time (min)	0	2	4	6	9	11	14
Temperature (°C)							

(7 marks)

v) In the axes below, plot a graph of temperature, (^{o} C) against time, t, (s) (5 marks)



vi) Determine the rate of cooling at t = 5 min. (3 marks)