

PHYSICS REVISION EXERCISE

THRMMOMETERS

1. (a) Define temperature and state its SI unit.
(b) What is a thermometer?
(c) What is a thermometric property?
2. (a) Name two types of liquid - in - glass thermometers.
(b) What measurable quantity is used in the measurement of temperature in a liquid - in - glass thermometer.
3. Why do liquid - in - glass thermometers have
 - (i) a thin walled glass bulb?
 - (ii) a safety bulb?
 - (iii) a thick glass stem?
 - (iv) a fine bore?
4. State five properties of a good thermometric liquid.
5. Mercury is a better thermometric liquid than water. Give four reasons.
6. State with reasons the thermometer you would carry if you were travelling to the south pole.

THRMMOMETERS

1. Distinguish between temperature and heat.
2. Convert the following temperatures to Kelvin scale.
(i) $20^{\circ}C$ (ii) $-123^{\circ}C$ (iii) $473^{\circ}C$ (iv) $-35^{\circ}C$
3. Convert the following temperatures to Celcius scale.
(i) $0K$ (ii) $135K$ (iii) $25K$ (iv) $563K$
4. (i) Define the term fundamental interval in relation to thermometers.
(ii) Define the terms upper fixed point and lower fixed point of a thermometer.
5. An uncalibrated thermometer with a fundamental interval of 36 cm when used gave the following readings;
(i) 6 cm above the L.F.P.
(ii) 2 cm above the U.F.P
(iii) 3 cm below the L.F.P
Determine the temperature in each of the above cases.
6. Find the length of the mercury column above the lower fixed point the gives a reading of; (i) $36^{\circ}C$ (ii) $145^{\circ}C$
(iii) $-15^{\circ}C$ given that the thermometer has a fundamental interval of 50 cm.
7. Mention any three reasons for not using water as a thermometric liquid.
8. Mention two advantages alcohol has over mercury as a thermometric liquid.

END.