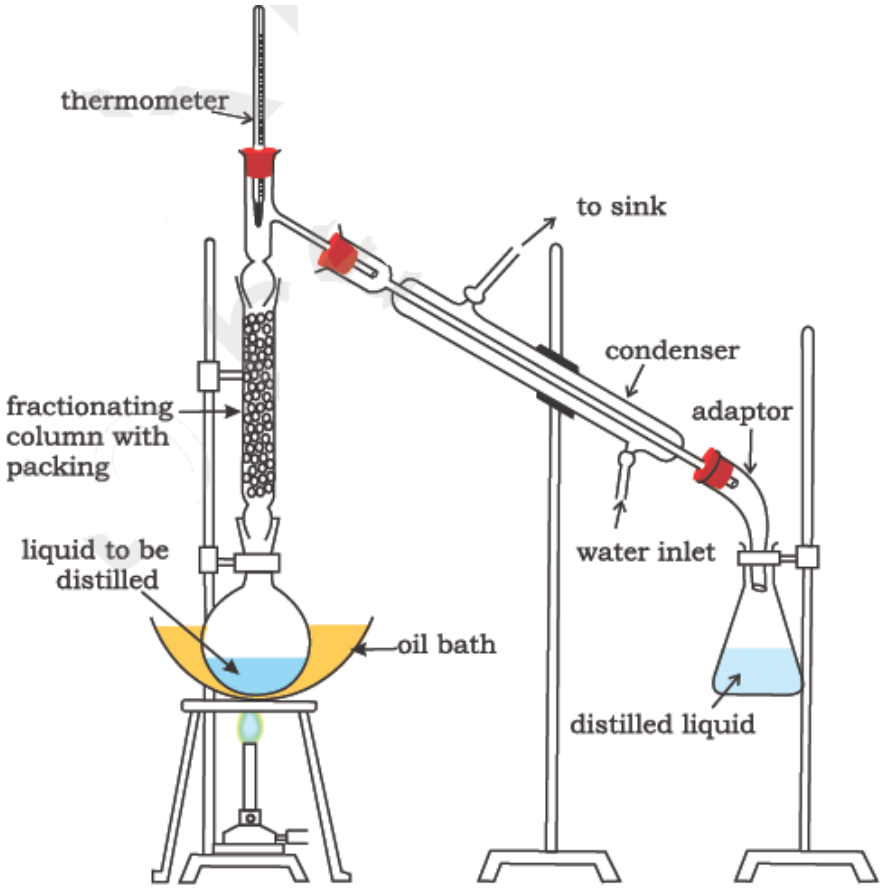

Figure 4. Fractional Distillation apparatus

Instruments:

1. Distillation flask.
2. Heating source.
3. Thermometer.

Procedure:

1. Take a sample of 50 ml and put it into the distillation flask.
2. Set up the apparatus as shown in figure (1). Be aware when setting up the apparatus that all its parts are supported and well fit to each other. The water flows to the condenser through the

lower hose connection (most remote from the distillation flask) and out the upper hose connection.

3. Heat slowly until the liquid gently boils.
4. The liquid should gently bubble and vaporize. As vapor rises from the liquid, it moves up the apparatus raising the temperature of the apparatus. And the thermometer reading will rise, after a period of time the liquid will start to boil.
5. Record the thermometer reading when the vapor starts to rise, and also the thermometer reading when the boiling starts, this way you will have a range of boiling temperature.
6. Compare your readings with tables of boiling points for known compounds to identify the unknown compound.