

- ✓(c) The following results were obtained with a constant volume gas thermometer.

	Level of mercury in a closed limb	Level of mercury in open limb (in mm)
Bulb in ice	136mm	112mm
Bulb in steam at 760mm Hg	136mm	390mm
Bulb at room temperature	136mm	160mm

Calculate the room temperature.

(05 mks)

(e) When a test junction of a thermocouple is placed successively in a water bath of unknown temperature and then boiling point, it reads 1.44mV and 4.00 mV respectively.

- (i) Calculate the temperature of the water bath. (03 mks)
- (ii) Find the thermoelectric e.m.f when the test junction is placed in melting tin of 232°C . State your assumption. (03 mks)