

*For a thermocouple, the values of  $C_1$  and  $C_2$  are  $40.0 \times 10^{-6} \text{ V}^\circ\text{C}^{-1}$  and  $-0.01 \times 10^{-6} \text{ V}^\circ\text{C}^{-2}$  respectively. If the thermo emf between the junctions is  $2.3 \times 10^{-2} \text{ V}$  and the cold junction is kept at the ice point, calculate the temperature of the hot junction.*