a.

Let us write down conservation energy condition. On the left side is heat given to ice cubes, on the right - heat taken from water

$$2 \cdot m_{ice} \cdot c_{ice} \cdot \Delta T_0 + 2 \cdot m_{ice} \cdot \lambda + 2 \cdot m_{ice} \cdot c_{water} \cdot t_1 = m_{water} \cdot c_{water}(25 - t_1)$$

here c denotes specific heat capacity and lambda denotes specific heat of melting of ice, $\Delta T_0 = 15°$ C. We can find t_1 - the final temperature from this equation.

$$t_1 = \frac{m_{water} \cdot c_{water} \cdot 25 - 2 \cdot m_{ice} \cdot c_{ice} \cdot \Delta T_0 - 2 \cdot m_{ice} \cdot \lambda}{m_{water} \cdot c_{water} + 2 \cdot m_{ice} \cdot c_{water}}$$

But if we evaluate

$$m_{water} \cdot c_{water} \cdot 25 - 2 \cdot m_{ice} \cdot c_{ice} \cdot \Delta T_0 - 2 \cdot m_{ice} \cdot \lambda = 0.2 \cdot 4200 \cdot 25 - 2 \cdot 0.05 \cdot 15 \cdot 2060 - 2 \cdot 0.05 \cdot 335000 = -15500$$

we will see it is negative. this means that there is not enough heat to melt all the ice. Hence, final temperature is 0 C.

b.

The same formula without factor 2 for ice

$$t_1 = (m_{water} \cdot c_{water} \cdot 25 - m_{ice} \cdot c_{ice} \cdot \Delta T_0 degrees - m_{ice} \cdot \lambda)/(m_{water} \cdot c_{water} + m_{ice} \cdot c_{water}) =$$

$$= \frac{0.2 \cdot 4200 \cdot 25 - 0.05 \cdot 15 \cdot 2060 - 0.05 \cdot 335000}{0.2 \cdot 4200 + 0.05 \cdot 4200} = 2.5°C$$

Here answer is 2.5 degrees C