

Q1) Calculate the Specific heat capacity of solid? (10M)

Where; $m_c=1000$ gm, $m_w=363$ gm, $\theta_1 =27.4$ °C, $V=4.1$ V, $I=1.7$ A

Time/m	Temp/°C
1	27.3
2	27.9
3	28.9
4	30
5	31.1
6	31.2
7	33.1
8	34.1
9	35.4
10	36.4
11	37.4
12	38.4
13	38.8
14	38.8
15	38.5
16	38.2
17	38
18	37.7
19	37.5
20	37.4

Q2) A) Calculate the latent heat of vaporization? from the data: (6M)

$$\theta_1 = 17^\circ\text{C}$$

$$\theta_2 = 30^\circ\text{C}$$

$$m_w = 138\text{gm}$$

$$m_{w+\text{vapor}} = 141\text{gm}$$

$$C_w = 4200$$

B) Define the performance of a refrigerator and write down the equation of performance? (2M)

Good Luck

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