

PYQSide

JEE MAIN THERMAL PROPERTIES OF MATTER — CHANGE OF STATE AND LATENT HEAT — PYQS

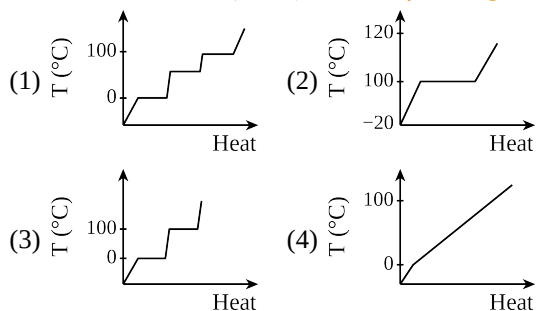
Max. Marks: 12

Questions: 3

Section A (MCQ)

- Q.1** Which of the following best represents the temperature versus heat supplied graph for water, in the range of -20°C to 120°C ?

[JEE Main 2026 (Online) 28th January Morning Shift]



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- Q.2** 10 kg of ice at -10°C is added to 100 kg of water to lower its temperature from 25°C . Consider no heat exchange to surroundings. The decrement to the temperature of water is ____ $^{\circ}\text{C}$.
(specific heat of ice = $2100 \text{ J/kg }^{\circ}\text{C}$, specific heat of water = $4200 \text{ J/kg }^{\circ}\text{C}$, latent heat of fusion of ice = $3.36 \times 10^5 \text{ J/kg}$)

[JEE Main 2026 (Online) 28th January Morning Shift]

- (1) 15 (2) 10 (3) 6.67 (4) 11.6

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Section B (Numerical)

- Q.3** The heat extracted out of x gram of water initially at 50°C to cool it down to 0°C is sufficient to evaporate $(1000 - x)$ gram of water also initially at 50°C . The value of x (closest integer) is _____.
(Take latent heat of water 2256 kJ/kg , specific heat capacity of water $4200 \text{ J/kg }^{\circ}\text{C}$)

[JEE Main 2026 (Online) 5th April Evening Shift]

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ANSWER KEY

Section A (MCQ)

Ques.	1	2											
Ans.	3	2											

Section B (Numerical)

Ques.	3								
Ans.	922								