



**TARGET : NEET (UG) 2024**

**Course : SARANSH (Youtube Live CRASH COURSE)**

**PHYSICS**

**DPP**

**DAILY PRACTICE PROBLEMS**

**DPP NO. 1**

**PHYSICS: Calorimetry & Thermal Expansion**

**DPP No. : 1**

- At NTP water boils at  $100^{\circ}\text{C}$ . Deep down the mine, water will boil at a temperature  
 (1)  $100^{\circ}\text{C}$                       (2)  $> 100^{\circ}\text{C}$                       (3)  $< 100^{\circ}\text{C}$                       (4) Will not boil at all
- The latent heat of vaporization of a substance is always  
 (1) Greater than its latent heat of fusion  
 (2) Greater than its latent heat of sublimation  
 (3) Equal to its latent heat of sublimation  
 (4) Less than its latent heat of fusion
- How much heat energy is gained when 5 kg of water at  $20^{\circ}\text{C}$  is brought to its boiling point  
 (Specific heat of water =  $4.2 \text{ kJ kg}^{-1}\text{C}^{-1}$ )  
 (1) 1680 kJ                      (2) 1700 kJ                      (3) 1720 kJ                      (4) 1740 kJ
- Heat required to convert one gram of ice at  $0^{\circ}\text{C}$  into steam at  $100^{\circ}\text{C}$  is (given  $L_{\text{steam}} = 536 \text{ cal/gm}$ )  
 (1) 100 calorie                      (2) 0.01 kilocalorie                      (3) 716 calorie                      (4) 1 kilocalorie
- Two spheres made of same substance have diameters in the ratio 1 : 2. Their thermal capacities are in the ratio of  
 (1) 1 : 2                      (2) 1 : 8                      (3) 1 : 4                      (4) 2 : 1
- 50 gm of copper is heated to increase its temperature by  $10^{\circ}\text{C}$ . If the same quantity of heat is given to 10 gm of water, the rise in its temperature is (Specific heat of copper =  $420 \text{ Joule}\cdot\text{kg}^{-1}\text{C}^{-1}$ )  
 (1)  $5^{\circ}\text{C}$                       (2)  $6^{\circ}\text{C}$                       (3)  $7^{\circ}\text{C}$                       (4)  $8^{\circ}\text{C}$
- A closed bottle containing water at  $30^{\circ}\text{C}$  is carried to the moon in a space-ship. If it is placed on the surface of the moon, what will happen to the water as soon as the lid is opened  
 (1) Water will boil  
 (2) Water will freeze  
 (3) Nothing will happen on it  
 (4) It will decompose into  $\text{H}_2$  and  $\text{O}_2$
- A water fall is 84 metres high. If half of the potential energy of the falling water gets converted to heat, the rise in temperature of water will be  
 (1)  $0.098^{\circ}\text{C}$                       (2)  $0.98^{\circ}\text{C}$                       (3)  $9.8^{\circ}\text{C}$                       (4)  $0.0098^{\circ}\text{C}$
- In supplying 400 calories of heat to a system, the work done will be  
 (1) 400 joules                      (2) 1672 joules                      (3) 1672 watts                      (4) 1672 ergs
- The SI unit of mechanical equivalent of heat is  
 (1) Joule  $\times$  Calorie                      (2) Joule/Calorie                      (3) Calorie  $\times$  Erg                      (4) Erg/Calorie

