Cosmo School

Physics | **Worksheet 6 : 22/10/2020** | **Class - IX**

CHAPTER 6 : EFFECT OF HEAT ON MATTER

Instructions:

- ✓ Read the chapter in your book - quickly and thoroughly, preferably more than once.
- ✓ Watch the uploaded video classes of this chapter from school's website/You Tube channel. For becoming more clear about the basics, watch more than once, if needed.
- ✓ Contact me in case of any difficulty in understanding.

(Questions given in this worksheet are important questions for all exams)

Creative Questions

(Solve Yourself)

1. When a copper sphere at temperature 30°C is heated to the temperature 110°C, its volume becomes $32m^3$. Specific heat of copper is $400Jkg^{-1}K^{-1}$ and mass of copper sphere is 250gm. And the area of circular ring made of metal is $11.34m^2$.

a) Find out the amount of heat gained by copper sphere.

b) If there is no loss of heat energy, will the heated copper sphere go through the metal ring of the stem? Analyze with logic.

2. By applying 1950J heat upon a wire of mass 0.5kg, its temperature is raised 30K and final length becomes 100.033m.

a) Determine specific heat of the material of the wire.

b) Is it possible to enter a ring made by the initial length of the wire inside a hollow cube of height 32m? Give your opinion with mathematical analysis.