

**VISWABHARATI - GUDIVADA**  
**RAPID FIRE ROUND TEST**

**WORK SHEET - 1**

**Syllabus: Heat & Refraction of Light at Plane Surface**

**Class: X**

**Subject: Physics**

**Name** \_\_\_\_\_ **Class/Sec:** \_\_\_\_\_ **Roll No:** \_\_\_\_\_

**Time: 1Hr**

**Marks: 25**

**Roll No:** \_\_\_\_\_

**I. Answer the following Questions.**

**5 × 4 = 20**

1. Explain the procedure of finding specific heat of solid experimentally.
2. Suggest an experiment to prove that rate of evaporation of a liquid depends on its surface area and vapour already present in surrounding air.
3. Observe the following table.

Material medium	Refractive index
Air	1.0003
Ice	1.31
Water	1.33
Crown glass	1.52
Benzene	1.50
Carbon Diasulphide	1.63
Diamond	2.42

Answer the following questions based on the table.

- a) Name the denser and rarer medium for given material medium.
  - b) Arrange in ascending order of speed of light in the above media.
  - c) Refractive index of a medium is “n” what does it mean?
  - d) Why do different material media possess different values of refractive indices?
4. Obtain a relation between angle of incident and angle of refraction with an activity.
  5. Calculate required heat energy to change 12g of ice at  $-10^{\circ}\text{C}$  into water vapour at  $100^{\circ}\text{C}$

**II. Answer the following:**

**1×5 = 5**

6. Define lateral shift and draw a neat ray diagram of refraction of light through a glass slab and label the parts.