

# VISWABHARATI - GUDIVADA

## WORK SHEET - 1

### Chapters: Heat , Refraction of light on plane surfaces

Class: X

Subject: Physics

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

Time: 1.30min

Marks: 30

Answer the following Questions

15 × 2 = 30

1. The temperature of the two cities at different times are given as follows.

City	At 6 A.M	At 11.30 A.M	AT 6.00 P.M
A	-3 <sup>0</sup> C	300K	5 <sup>0</sup> C
B	271K	27 <sup>0</sup> C	270K

Based on the above table answer the following questions.

- A) In which city the morning temperature at 6 'O clock is relatively high.  
B) At what time both cities are having equal temperature.
2. Observe the table and answer the following questions.

Material	Ice	Water	Benzene	Carbon disulphide
Refractive index	1.31	1.33	1.5	1.63

- A) In which material speed of light is more.  
B) Which material having less refractive index.
3. How do you appreciate the reason behind the brilliance of a diamond.
4. 50gr of water at 20<sup>0</sup>C is mixed with 50gr of water at t<sup>0</sup>c . If the final temperature is 30<sup>0</sup>C . Find t<sup>0</sup>c.
5. In what cases, a light ray does not deviate at the interface of two media.
6. Three objects, A at 30<sup>0</sup>C, B at 303K and C at 420K are in thermal contact. Then answer the following Questions.
- i) Which are in "Thermal Equilibrium" among A,B and C  
ii) From which object to another heat is transferred.
7. Write the factors that affect the process if evaporation. Explain one daily life example.
8. Why do stars appear twinkling?
9. Light enters from air to glass having refractive index 1.50. What is the speed of light in the glass.(C=3×10<sup>8</sup> m / sec).
10. Why are the bubbles rising up in the fish tank appear silvery.
11. Explain total internal reflection with an example.
12. Draw the refraction of light through glass slab neatly.
13. Why Oceans are called store houses for earth.
14. Explain the following.
- A) Principle of method of mixtures.  
B) Why specific heat is different for different materials.
15. When we sit at campfire, objects beyond the fire are seen swaying. Give the reason.