PHYSICS

BOOKS - PUNJAB BOARD PREVIOUS YEAR PAPERS

Diffraction of Light

Example

1. A 12 m tall tree is to be photographed with a pin hole camera. It is situated 15 m away from

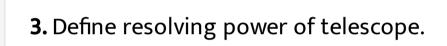the pin hole. How for should the screen be placed from the pin hole to obtain 12 cm tall image of the tree?

2. A parallel beam of light of wavelength 500 nm (Nanometer) falls on a narrow slit and the resulting diffraction pattern is observed on a screen 1 metre away. It is observed that the first minimum is at a distance of 2.5 mm

(milimetre) from the centre of the screen. Find the width of the slit.

3. Define resolving power of telescope.

4. Write four differences between interfernce nd diffraction.

5. Give the points of difference between the phenomenon of diffraction and interfence of light.

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6. State the necessary condition for diffraction of light to occur?

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7. Write four differences between interfernce nd diffraction.

8. What do you mean by diffraction of light? Give one example of this phenomenon. Discuss diffraction of light at single slit.

9. What is diffraction of light?

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11. What is diffraction of light? Discuss Fraunchofer diffraction of light at a sibgle slit with the help of diagram and deduce expression for width of central maxima, secondary maxima and minima, State the factor on whic fringe width depends.

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13. Explain why danger signals are made of red colour ?

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