



1. State 3 uses of light.

(3mks)

2. Describe experiments that can be conducted to demonstrate rectilinear propagation of light.

(3mks)

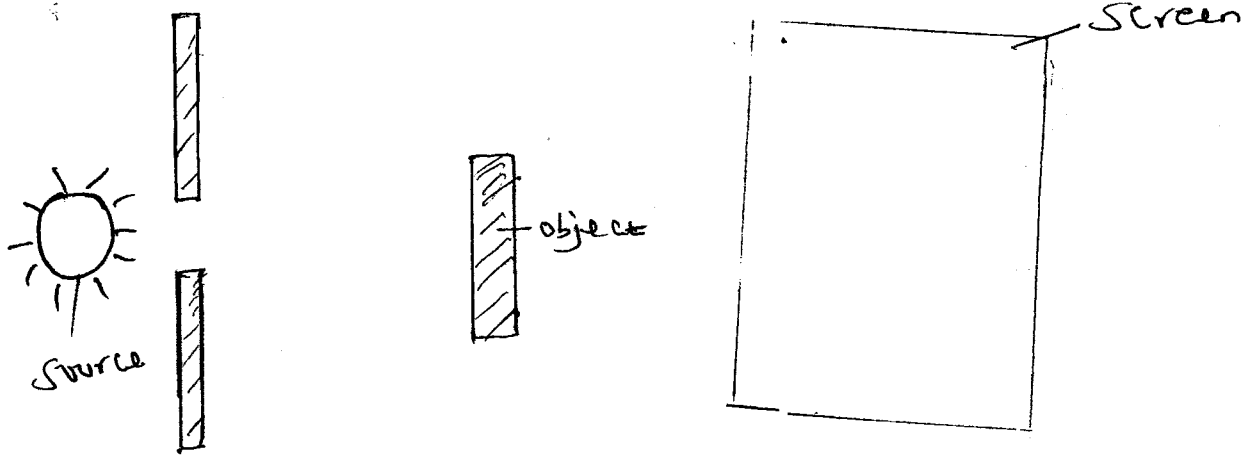
3(i) What is a shadow?

(1mk)

ii) State three things that determine the type of shadow formed.

(3mks)

4. The set up below was used to investigate the type of a shadow formed from an extended source of light. Using a ray diagram. Draw the shadow formed and label the parts. (5mks)



5. Using clearly labeled diagrams, distinguish between solar and lunar eclipse. (6mks)

6. State the characteristics of an image formed by a pinhole camera. (2mks)

7. What is the effect of increasing the size of a pinhole on the image formed in a pinhole camera. (2mks)

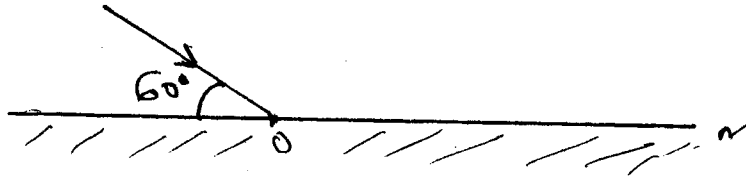
8. State the effect of decreasing the length a pin hole camera on the image formed. (2mks

9. An object of heights 10m is placed 20m away from the pinhole. If the image size is 5cm.
Calculate (a) Magnification (2mks

b)Length of the pinhole camera. (2mks

10. State the laws of reflection. (2mks

11. The diagram below shows a ray of light incident on a plane mirror at an angle of 60° . Find the angle of reflection. (2mks)

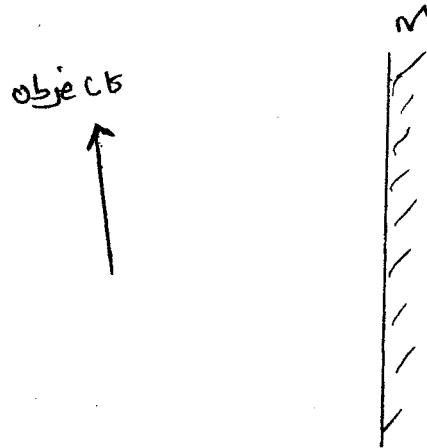


- c) When the mirror is rotated through 10° in a clockwise direction, Find the new angle of reflection if the incident ray remains unchanged. (3mks)

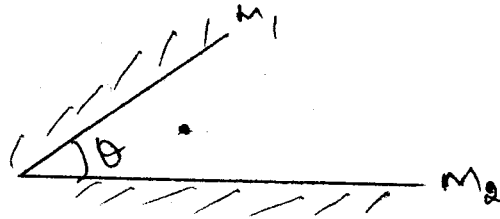
12. State the characteristics of images formed on a plane mirror. (4mks)

13. Using construction method, draw the image of the object shown.

(6mks)



14. Calculate the angle between the following mirrors if the number of images formed is 19. (3mks)



15. Define electro statics.

(2mks)

16. What is the meaning of the following terms.

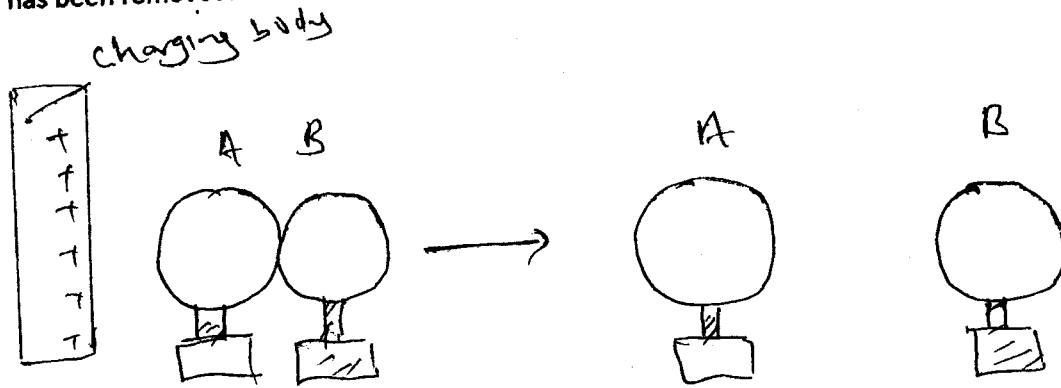
i) Negative charge

(2mks)

ii) Positive charge

(2mks)

17. The following spheres were charged by separation method show the charge distribution after the rod has been removed.



After separation and charge removed.

18. State 4 uses of a gold leaf electroscope.

(4mks)

19. Describe how a gold leaf can be charge Negatively by induction method.

(6mks)

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