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## Q.1 Multiple Choice Questions

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- The power of the lens with focal length 20 cm is  
a. 3D    b. 5D    c. 15D    d. 4D
- The incident ray passes without changing its direction, when it passes through.  
a. focus    b. optical centre    c. parallel to principal axis    d. None of the above
- When the incident ray passes through the principal focus, the refracted ray.  
a. passes without changing its direction  
b. is parallel to Principal axis  
c. passes through optical centre  
d. None of the above

## Q.2 Find the odd one out

2

- Presbyopia, Retina, Near Sightedness, Far Sightedness
- Motion picture, Colour blindness, T.V, Buring of incense stick and revolving it

## Q.3 Give scientific reasons

4

- We can not clearly see an object kept at a distance less than 25 cm from the eye.
- Piece of paper held in front of the Concave lens will not burn.

## Q.4 Write Short Notes

4

- Define Principal Focus (F) of Concave lens.
- Give the characteristics of image formed by refracting telescope

## Q.5 Laws/define/principles

4

- Define centre of curvature of lens.
- What is lens formula.

## Q.6 Distinguish between(Any One)

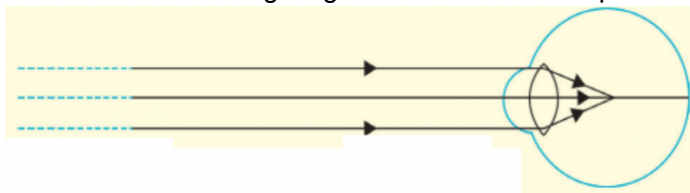
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- Mirror and Lens
- Farsightedness (Hypermetropia) and Near sightedness (Myopia)

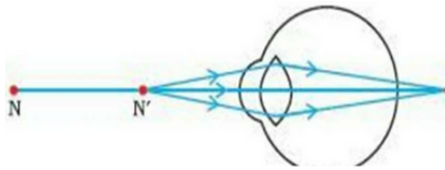
## Q.7 Write answers based on given diagram/figure(Any One)

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- Observe the following diagram and answer the questions



- Which eye defect is shown in this diagram?
  - What are the possible reasons for this eye defect?
  - How this defect is corrected, write it in brief?
- Observe the diagram and answer the questions :



- i. Recognize the defect.
- ii. Write reason for the defect.
- iii. Write in brief about its correction.

**Q.8 Answer the following(Any One)**

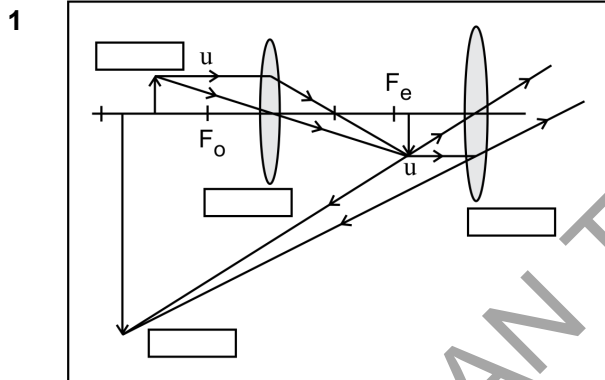
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- 1 Explain with the help of a diagram what is convex mirror ?
- 2 Match the table and explain in short its defect and correction:

Column 1	Column 2	Column 3
Farsightedness	Nearby object can be seen clearly	Bifocal lens
Presbyopia	Far away object can be seen clearly	Concave lens
Nearsightedness	Problem of old age	Convex lens

**Q.9 Answer the following in detail (Any One)**

5



- i. Which type of microscope has the arrangement of lenses shown in the adjoining figure?
  - ii. Label the figure correctly.
  - iii. Write the working of this microscope.
  - iv. Where does this microscope used?
  - v. Suggest a way to increase the efficiency of this microscope.
- 2 i. In a compound microscope, which lens has greater focal length?
  - ii. Where do you place the object to be observed with a compound microscope?
  - iii. State which distance is adjusted to observe the object with a compound microscope.
  - iv. State the nature of the final image in a compound microscope relative to the object.
  - v. State the use of a compound microscope.

YOUR FLIGHT , OUR WINGS .