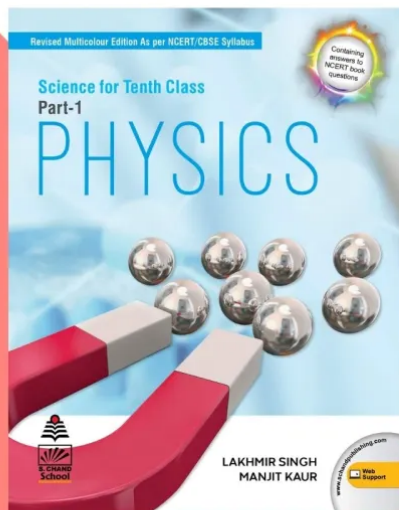


Lakhmir Singh Manjit Kaur Solutions for Class 10 Physics (Part 1) Chapter 6- The Human Eyes And The Colourful World



Lakhmir Singh
Manjit Kaur

CLASS 10 PHYSICS

Chapter 6: The Human Eyes
And The Colourful World

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Very Short Answer Type Questions

Q1. What kind of lens is present in the human eye?

Answer:

Convex lens is present in the human eye.

Q2. Name two parts of the eye which refract light rays.

Answer:

The two parts of the eye that refract light rays are cornea and eye-lens.

Q3. Name the part of eye:

a) Which controls the amount of light entering the eye

b) On which the image is formed

c) Which changes the focal length of eye-lens

Answer:

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- a) Iris
- b) Retina
- c) Ciliary muscles

Q4. What is the name of:

- a) The curved, transparent front surface of the eye?
- b) The light-sensitive layer in the eye?

Answer:

- a) Cornea
- b) Retina

Q5. Where is the image formed in a human eye?

Answer:

The image is formed at the retina in a human eye.

Q6. What is the function of the lens in the human eye?

Answer:

The function of eye lens is to change the shape and thickness so that light gets focused on the retina.

Q7. What job does the pupil of the eye do?

Answer:

The job of the pupil in the eye is to expand or contract depending on the intensity of the light around the eye.

Q8. How does the eye adjust to take account of an increase in brightness?

Answer:

This is done with the help of the pupil of our eyes as it contracts.

Q9. Name that part of the eye which is equivalent to the photographic film in a camera.

Answer:

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Retina is the part of an eye which is equivalent to the photographic film in a camera.

Q10. Name the part of the retina which is insensitive to light.

Answer:

Blind spot is insensitive part of the retina.

Q11. Which part of the eye contains cells which are sensitive to light?

Answer:

Retina contains cells that are sensitive to light.

Q12. Name two types of cells in the retina of an eye which respond to light.

Answer:

Rods and cones are the two types of cells in the retina of an eye that responds to light.

Q13. Out of rods and cones in the retina of your eye:

a) Which detect colour?

b) Which work in dim light?

Answer:

a) Cones

b) Rods

Q14. State whether the following statement is true or false:

The image formed on our retina is upside-down.

Answer:

True

Q15. What is the principal function of the eye-lens?

Answer:

The principal function of the eye-lens is to focus light on to the retina.

Q16. Where does the greatest degree of refraction of light occur in the eye?

Answer:

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The greatest degree of refraction of light occurs at the cornea of the eye.

Q17. What changes the shape of lens in the eye?

Answer:

The shape of the lens in the eye is changed with the help of ciliary muscles.

Q18. What do the ciliary muscles do when you are focusing on a nearby object?

Answer:

While focusing on a nearby object, the ciliary muscle makes the lens of the eye more thick.

Q19. What is the least distance of distinct vision for a normal human eye?

Answer:

25cm is the least distance of distinct vision for a normal human eye.

Q20. What is the:

a) Far point of a normal human eye?

b) Near point of a normal human eye?

Answer:

a) Infinity is the far point of a normal human eye.

b) 25 cm is the near point of a normal human eye.

Q21. What is the range of vision of a normal human eye?

Answer:

The range of vision of a normal human eye is from infinity to 25cm.

Q22. Name the part of our eyes which helps us to focus near and distant objects in quick succession.

Answer:

Ciliary muscles helps us to focus near and distant objects in quick succession.

Q23. Define the term “power of accommodation” of human eye.

Answer:

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Power of accommodation is defined as the ability of an eye to focus the distant object as well as the nearby object on the retina by changing the focal length of the lens.

Q24. Give the scientific names of the following parts of the eye:

- a) Carries signals from an eye to the brain
- b) Muscles which change the shape of the eye-lens
- c) A hole in the middle of the iris
- d) A clear window at the front of the eye
- e) Changes shape to focus a picture on the retina

Answer:

- a) Optical nerve
- b) Ciliary muscles
- c) Pupil
- d) Cornea
- e) Eye lens

Q25. Fill in the following blanks with suitable words:

- a) Most of the refraction of light rays entering the eye occurs at the outer surface of the
- b) The part of eye sensitive to light is
- c) The part of eye which alters the size of the pupil is
- d) When light is dim, the pupil becomes
- e) The iris controls the amount of entering the eye.
- f) The ciliary muscles control the shape of the
- g) To bring light from a distant object to a focus on the retina of the eye, the convex eye-lens needs to be made
- h) To bring light from a near object to a focus on the retina of the eye, the convex eye lens needs to be made

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Answer:

- a) Cornea
- b) Retina
- c) Iris
- d) Large
- e) Light
- f) Eye-lens
- g) Thinner
- h) Thicker

Short Answer Type Questions

Q26. Why is a normal eye not able to see clearly the objects placed closer than 25cm?

Answer:

A normal eye cannot see clearly the objects that are placed closer than 25cm because the power of accommodation of the eye is 25cm which is exhausted. When the maximum accommodation of the eye is reached, the ciliary muscles of the eye lens cannot become more thick.

Q27. What changes take place in the shape of eye-lens:

- a) When the eye is focused on a near object?**
- b) When the eye is focused on a distant object?**

Answer:

- a) When the eye is focused on a near object, the eye-lens becomes thicker.
- b) When the eye is focused on a distant object, the eye-lens becomes thinner.

Q28. The eyes of a person are focused

- i) On a nearby object**
- ii) On a distant object, turn by turn. In which case:**
 - a) The focal length of eye-lens will be the maximum?**

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b) The converging power of eye-lens will be the maximum?

Answer:

a) The focal length of eye-lens will be the maximum when the eye is focused on a distant object.

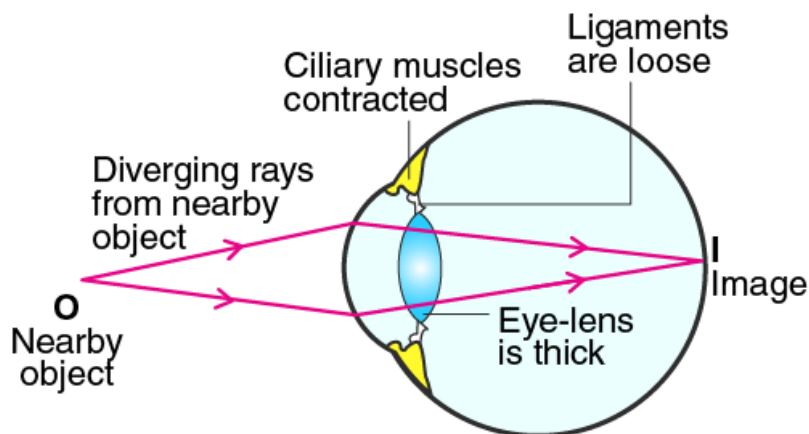
b) The converging power of eye-lens will be the maximum when the eye is focused on a nearby object.

Q29. What change is made in the eye to enable it to focus on objects situated at different distances?

Illustrate your answer with the help of diagrams.

Answer:

For an eye to focus on objects situated at different distances, the ciliary muscles of the eye either get fully relaxed or stretched. The ciliary muscle contracts so that the nearby objects can be focused by making the suspensory ligaments loose.



Here eye lens is thick. it has short focal length but large converging power

Q30. How is the amount of light entering the eye controlled?

Answer:

Iris controls the amount of light that enters the eye. Depending on the intensity of the light received by the eye, the size of the pupil is adjusted. The iris contracts the size of the pupil if the intensity of the light received is large and the iris expands the size of the pupil if the intensity of the light received is small.

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Q31. What happens to the eye when you enter a darkened cinema hall from bright sunshine? Give reason for your answer.

Answer:

As we enter a darkened cinema hall from bright sunshine, at first we cannot see anything clearly. But in no time, our vision improves. This is because outside the cinema hall, the intensity of light entering the eye is large, so the iris makes sure that the pupil is small. But when we enter the cinema hall, the pupil expands making more room for light making things visible.

Q32. Why does it take some time to see objects in a dim room when you enter the room from bright sunshine outside?

Answer:

It takes some time to see objects in a dim room when you enter the room from bright sunshine outside because the size of the pupil is small as the intensity of light outside is more. When we enter in a dim room, the pupil expands making things visible.

Q33. A person walking in a dark corridor enters into a brightly lit room:

- a) State the effect on the pupil of the eye.
- b) How does this affect the amount of light entering the eye?

Answer:

- a) The pupil becomes smaller.
- b) The amount of light entering the eye is reduced.

Q34. Ciliary muscles of human eye can contract or relax. How does it help in the normal functioning of the eye?

Answer:

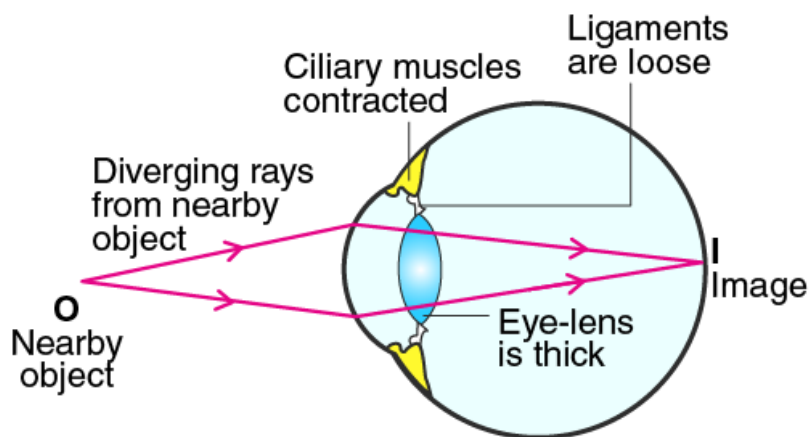
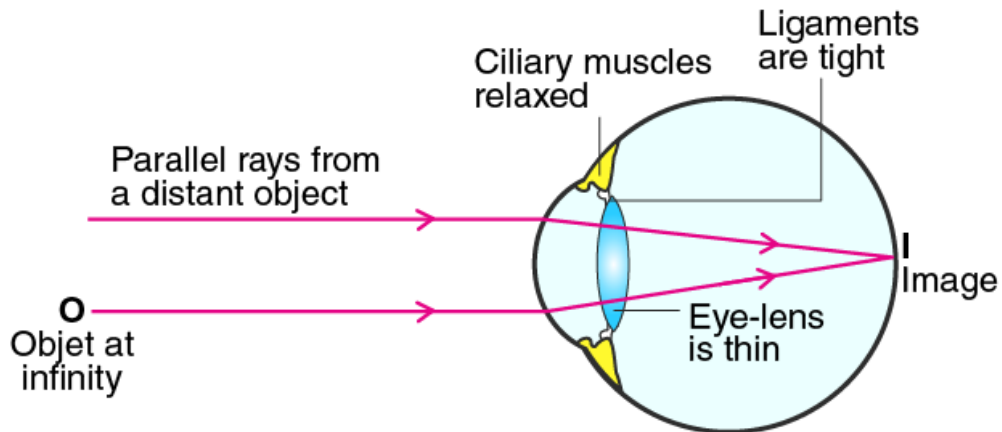
When the ciliary muscle gets relaxed, the eye lens become thin making it easy to see objects that are at a distant. When the ciliary muscle gets contracted, the eye lens become thick making it easy to see objects that are nearby. This is how the ciliary muscle help in the normal functioning of the eye.

Q35. Describe and explain how a normal eye can see objects lying at various distances clearly.

Answer:

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The objects that are at distant, the focus is done with the help of ciliary muscles. The ciliary muscles get fully relaxed and the suspensory ligaments are pulled and attached to the eye lens.



Here eye lens is thick. it has short focal length but large converging power

Q36. There are two types of light-sensitive cells in the human eye:

- Where are they found?
- What is each type called?
- To what is each type of cell sensitive?

Answer:

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- a) The two types of light sensitive cells are found in the retina
- b) These cells are called rods and cones
- c) Rods are sensitive to dim light while cones are sensitive to bright light.

Q37. What are rods and cones in the retina of an eye? Why is our night vision relatively poor compared to the night vision of an owl?

Answer:

Rods and cones are the cells in the retina of an eye. Rods are rod-shaped cells that are sensitive to dim light. Cones are cone-shaped that are sensitive to the bright light. The night vision of human is comparatively less when compared to owl because of the presence of lesser number of rod cells.

Q38. a) How does the convex eye lens differ from the ordinary convex lens made of glass?

b) List in order the parts of the eye through which light passes to reach the retina.

Answer:

a) The convex eye lens differs from the ordinary convex lens as the focal length of the convex lens in the eye is controlled by the ciliary muscles while the focal length of ordinary convex lens is fixed by fixing the focal length of the glass.

b) Cornea, pupil, eye-lens, retina.

Q39. a) What happens to the size of pupil of our eye

i) in dim light

ii) in bright light

b) Name the cells on the retina of an eye which are sensitive to

i) bright light

ii) dim light

iii) sensation of colour

Answer:

a) i) In dim light, pupil becomes large

ii) In bright light, pupil becomes small

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b) i) Cones

ii) Rods

iii) Cones

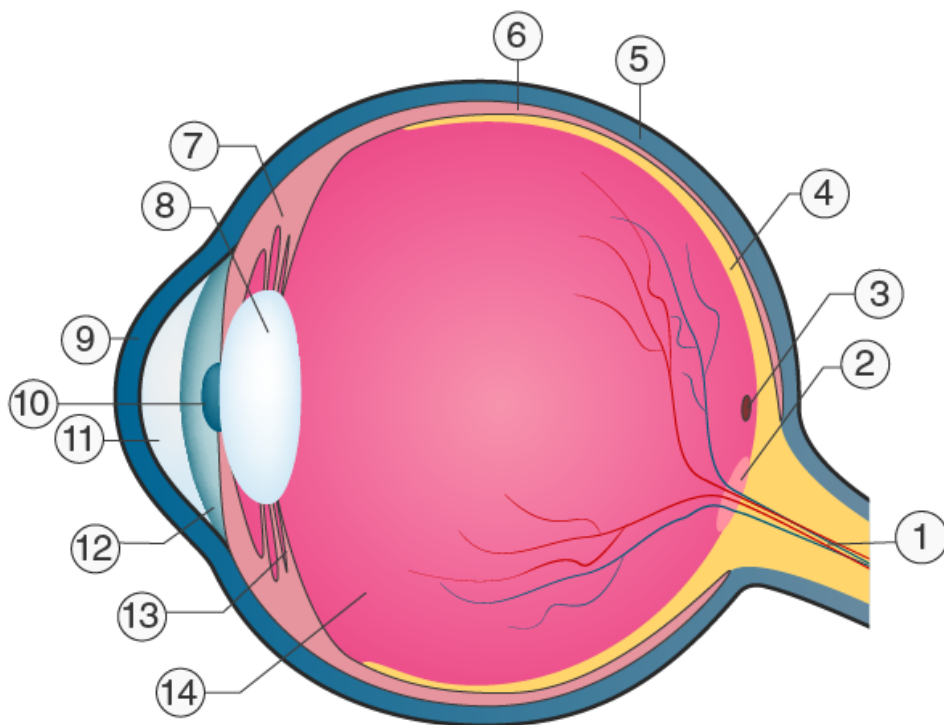
Q40. a) Draw a simple diagram of the human eye and label clearly the cornea, iris, pupil, ciliary muscles, eye lens, retina, optic nerve, and blind spot.

b) Describe the working of the human eye with the help of the above diagram.

c) How does the eye adjust itself to deal with light of varying intensity?

Answer:

a)



1 Optic nerve	2 Optic disc	3 Fovea centralis	4 Retina
5 Sclera	6 Choroid	7 Ciliary body	8 Lens
9 Cornea	10 Pupil	11 Aqueous body	12 Iris
13 Suspensory ligament	14 Vitreous body		

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b) **Working of the human eye:**

Q41. a) Explain the functions of the following parts of the eye:

a) cornea

b) iris

c) pupil

d) ciliary muscles

e) eye-lens

f) retina

g) optic nerve

b) If you walk from a dark room into sunlight and back again into dark room, how would your pupils alter in size? What makes this happen?

c) Explain why we cannot see our seats first when we enter a darkened cinema hall from bright light but gradually they become visible.

Answer:

a) a) Cornea: The front part of an eye through which the light enters is known as cornea.

b) Iris: The amount of light entering the eye is controlled by iris.

c) Pupil: The illumination in the eye is controlled by pupil.

d) Ciliary muscles: This helps in contracting and relaxing the eye lens.

e) Eye lens: It helps in focusing the light to the retina.

f) Retina: It responds to the intensity of the light and colour of the objects as it has cells known as rods and cones.

g) Optic nerve: The image formed on the retina is conveyed to the brain by optic nerve.

b) If we walk from the dark room into the sunlight, the pupil contracts and when we enter a dark room from sunlight, the pupil expands.

c) When we enter the cinema hall from bright sunlight, we cannot see the seat clearly because when we are in bright sunlight, the pupil is small as it has contracted but when we enter the hall, the pupil expands so that more light can be accommodated.

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Multiple Choice Questions

Q42. The human eye forms the image of an object at its:

- a) cornea
- b) iris
- c) pupil
- d) retina

Answer:

The correct answer is d) retina

Q43. The change in focal length of an eye-lens is caused by the action of the:

- a) pupil
- b) retina
- c) ciliary muscles
- d) iris

Answer:

The correct answer is c) ciliary muscles

Q44. The least distance of distinct vision for a young adult with normal vision is about:

- a) 25m
- b) 2.5cm
- c) 25cm
- d) 2.5m

Answer:

The correct answer is c) 25cm

Q45. Refraction of light in the eye occurs at:

- a) the lens only

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- b) the cornea only
- c) both the cornea and the lens
- d) the pupil

Answer:

The correct answer is c) both the cornea and the lens

Q46. To focus the image of a nearby object on the retina of an eye:

- a) the distance between eye-lens and retina is increased
- b) the distance between eye-lens and retina is decreased
- c) the thickness of eye-lens is decreased
- d) the thickness of eye-lens is increased

Answer:

The correct answer is d) the thickness of eye-lens is increased

Q47. The term “accommodation” as applied to the eye, refers to its ability to:

- a) control the light intensity falling on the retina
- b) erect the inverted image formed on the retina
- c) vary the focal length of the lens
- d) vary the distance between the lens and retina

Answer:

The correct answer is c) vary the focal length of the lens

Q48. Which of the following controls the amount of light entering the eye?

- a) ciliary muscles
- b) lens
- c) iris
- d) cornea

Answer:

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The correct answer is c) iris

Q49. The human eye possesses the power of accommodation. This is the power to:

- a) alter the diameter of the pupil as the intensity of light changes**
- b) distinguish between lights of different colours**
- c) focus on objects at different distances**
- d) decide which of the two objects is closer**

Answer:

The correct answer is c) focus on objects at different distances

Q50. How does the eye change in order to focus on near or distant object?

- a) the lens moves in or out**
- b) the retina moves in or out**
- c) the lens becomes thicker or thinner**
- d) the pupil gets larger or smaller**

Answer:

The correct answer is c) the lens becomes thicker or thinner

Q51. Which of the following changes occur when you walk out of bright sunshine into a poorly lit room?

- a) the pupil becomes larger**
- b) the lens becomes thicker**
- c) the ciliary muscles relaxes**
- d) the pupil becomes smaller**

Answer:

The correct answer is a) the pupil becomes larger

Q52. The size of the pupil of the eye is adjusted by:

- a) cornea**

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b) ciliary muscles

c) optic nerve

d) iris

Answer:

The correct answer is d) iris

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Very Short Answer Type Questions

Q1. Name one of the common defects of vision and the type of lens used to remove it.

Answer:

Myopia is one of the defects of vision which is removed by using concave lens.

Q2. Name the defect of vision in a person:

a) Whose near point is more than 25cm away.

b) Whose far point is less than infinity.

Answer:

a) Hypermetropia

b) Myopia

Q3. Which defect of vision can be rectified:

a) By using a concave lens?

b) By using a convex lens?

Answer:

a) Myopia

b) Hypermetropia

Q4. What type of lens is used to correct

a) Hypermetropia

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b) Myopia

Answer:

a) Convex lens

b) Concave lens

Q5. What is the other name for

a) Myopia

b) Hypermetropia

Answer:

a) Near-sightedness

b) Far-sightedness

Q6. What is the scientific name of

a) Short-sightedness

b) Long-sightedness

Answer:

a) Myopia

b) Hypermetropia

Q7. What kind of lens is used to correct

a) Short-sightedness

b) Long-sightedness

Answer:

a) Concave lens

b) Convex lens

Q8. State whether the following statement is true or false:

Short-sightedness can be cured by using a concave lens.

Answer:

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True

Q9. Name the defect of vision in which the eye lens loses its power of accommodation due to old age.

Answer:

Presbyopia

Q10. Name the defect of vision which makes the eye lens cloudy resulting in blurred vision.

Answer:

Cataract

Q11. What is the other name of old age hypermetropia?

Answer:

Presbyopia

Q12. Name any two defects of vision which can be corrected by using spectacles.

Answer:

a) Myopia

b) Hypermetropia

Q13. Name one defect of vision which cannot be corrected by any type of spectacle lenses.

Answer:

Cataract

Q14. Name the body part with which the terms myopia and hypermetropia are connected.

Answer:

Eye

Q15. What is the far point of person suffering from myopia?

Answer:

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Less than infinity.

Q16. Where is the near point of a person suffering from hypermetropia?

Answer:

For a person suffering from hypermetropia, the near point is 25cm.

Q17. Your friend can read a book perfectly well but cannot read the writing on blackboard unless she sits on the front row in class.

a) Is she short-sighted or long-sighted?

b) What type of lenses: converging or diverging would an optician prescribe for her?

Answer:

a) Short-sighted

b) Diverging lenses

Q18. A man can read the number of a distant bus clearly but he finds difficulty in reading a book. A man can read the number of a distant bus clearly but he finds difficulty in reading a book.

a) From which defect of the eye is he suffering?

b) What type of spectacle lens should he use to correct the defect?

Answer:

a) Hypermetropia

b) Convex lens

Q19. A student sitting in the last row of the class-room is not able to read clearly the writing on the blackboard.

a) Name the type of defect he is suffering from.

b) How can this defect be corrected?

Answer:

a) Myopia

b) Concave lens

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Q20. Complete the following sentences:

a) A short-sighted person cannot see objects clearly. Short-sightedness can be corrected by using lenses.

b) A long-sighted person cannot see objects clearly. Long-sightedness can be corrected by using lenses.

Answer:

a) Distant, concave

b) Nearby, convex

Short Answer Type Questions

Q21. What are the two most common defects of vision? How are they corrected?

Answer:

The two most common defects of vision are myopia and hypermetropia which can be corrected using a concave lens and a convex lens respectively.

Q22. Differentiate between myopia and hypermetropia. What type of spectacles should be worn by a person having the defects of myopia as well as hypermetropia? How it help?

Answer:

When a person can see objects that are placed nearby but find difficulty in seeing objects at a distance is known as myopia. Whereas if a person can see objects that are placed at a distance and find difficulty in seeing objects that are nearby is known as hypermetropia.

If a person is suffering from myopia as well as hypermetropia then that person is advised to use bifocal lenses in which the upper part consists of concave lens while the lower part consists of convex lens. The upper lens corrects myopia while the lower part corrects hypermetropia.

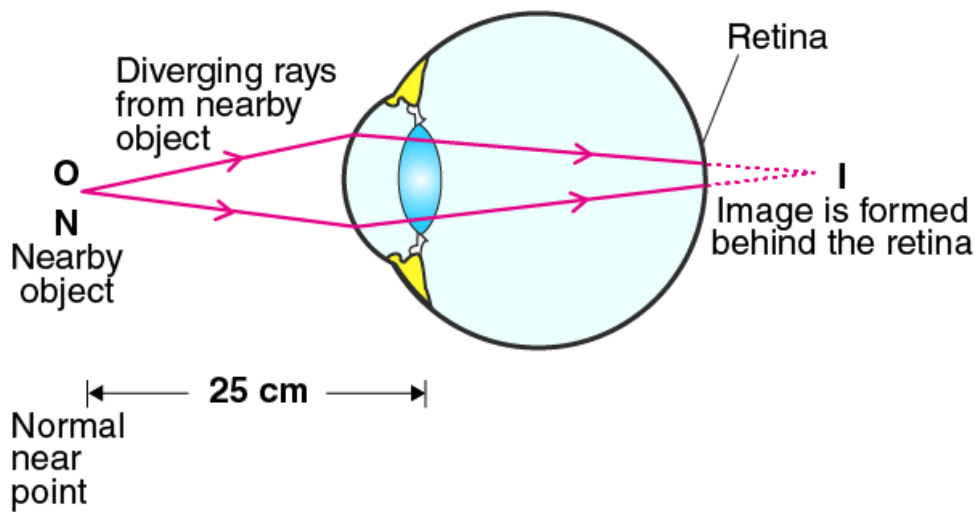
Q23. Name the defect of vision which can be corrected by a converging lens. Show clearly by a ray diagram how the lens corrects the defect.

Answer:

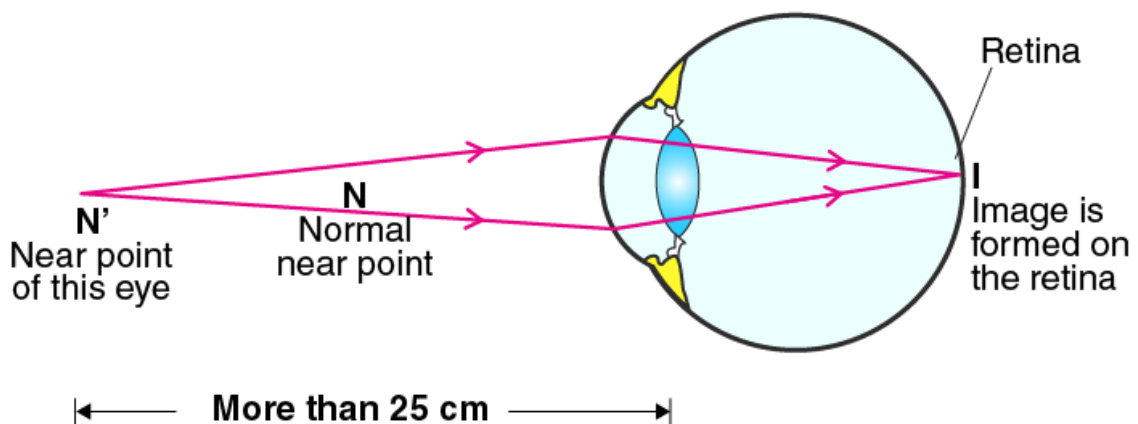
Converging lens is used for correcting hypermetropia.

a) Person suffering from hypermetropia, the image of the object placed nearby will form behind the retina.

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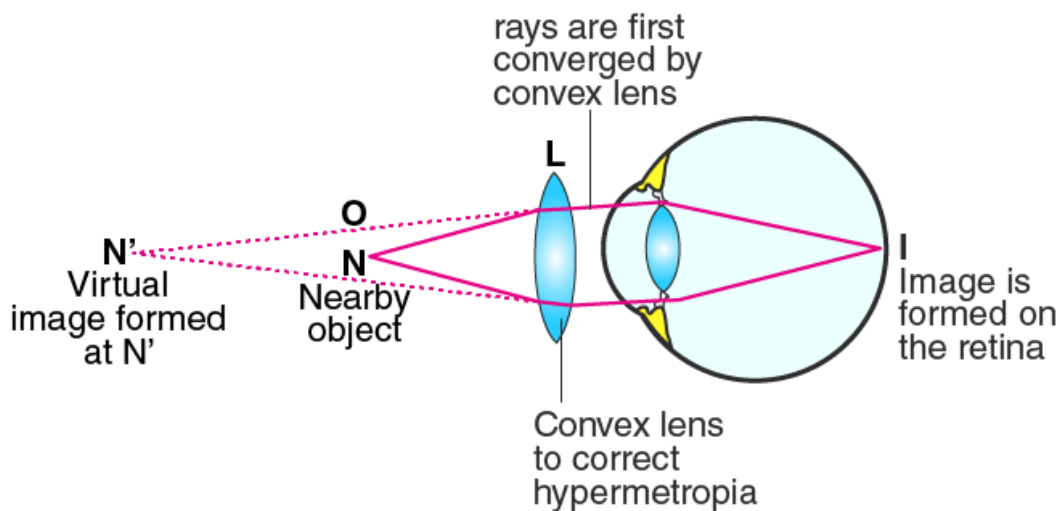


b) N' is the near point of hypermetropic eye which is farther away from the normal near point N.



c) Convex lens is used for correcting hypermetropia and a virtual image of the object is formed at the near point of the eye.

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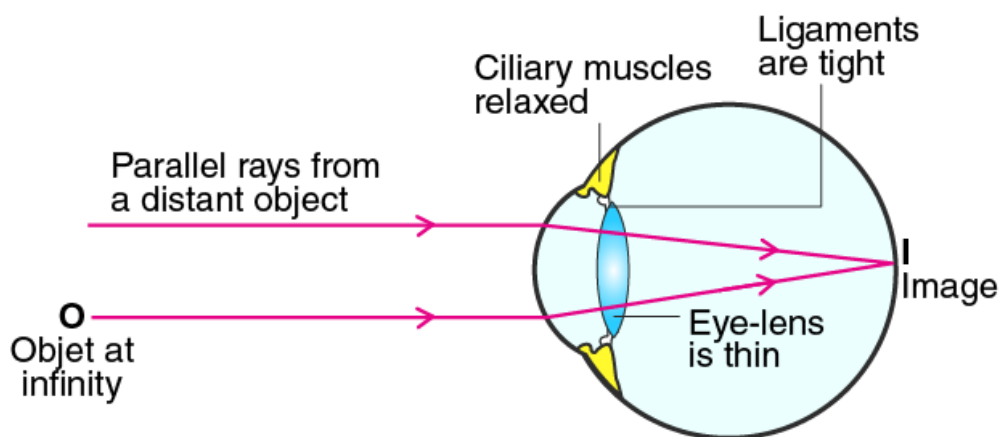


Q24. Name the defect of vision which can be corrected by a diverging lens. Show clearly by a ray diagram how the lens corrects the defects.

Answer:

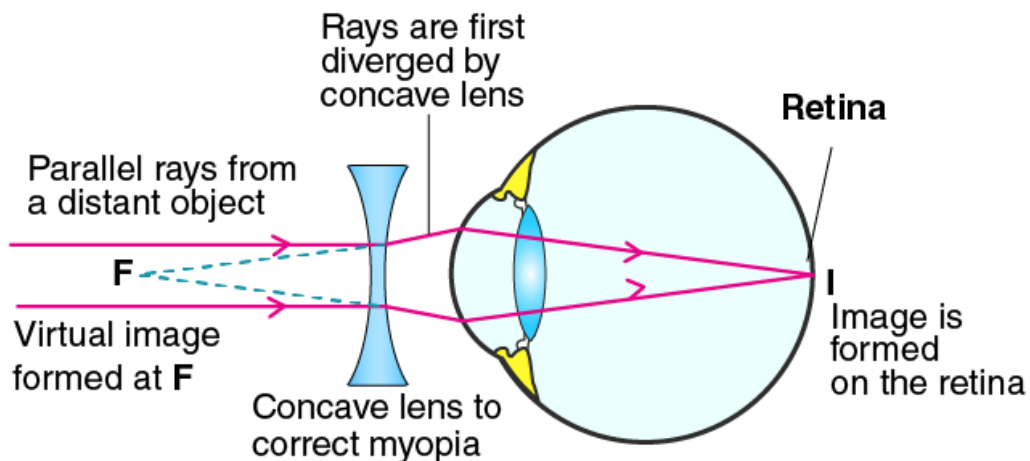
Diverging lens is used for correcting myopia. Following is the ray diagram of the correction of myopia:

a) The image formation for a myopic eye will happen in the front of the retina.



b) F is the far point of a myopic eye which is less than infinity.

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c) The concave lens is placed in the front of the eye which forms a virtual image of an object placed at a distance.

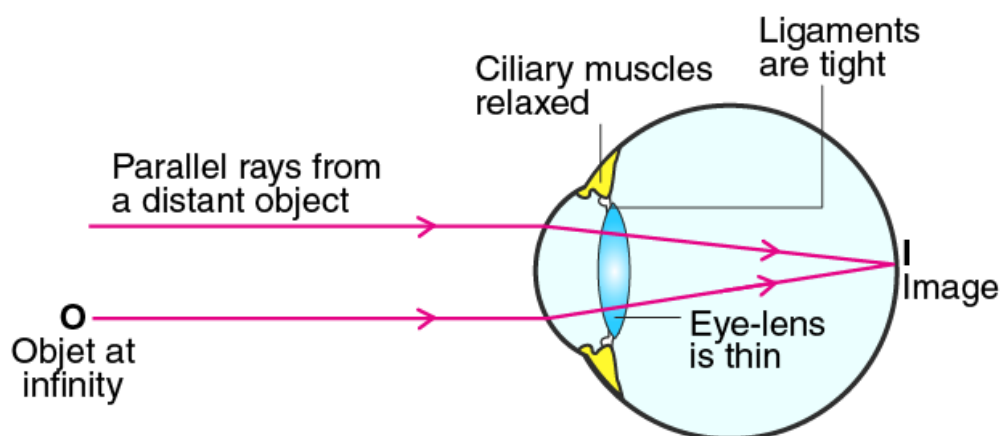
Q25. Explain with the help of labelled ray diagram, the defect of vision called myopia and how it is corrected by a lens.

Answer:

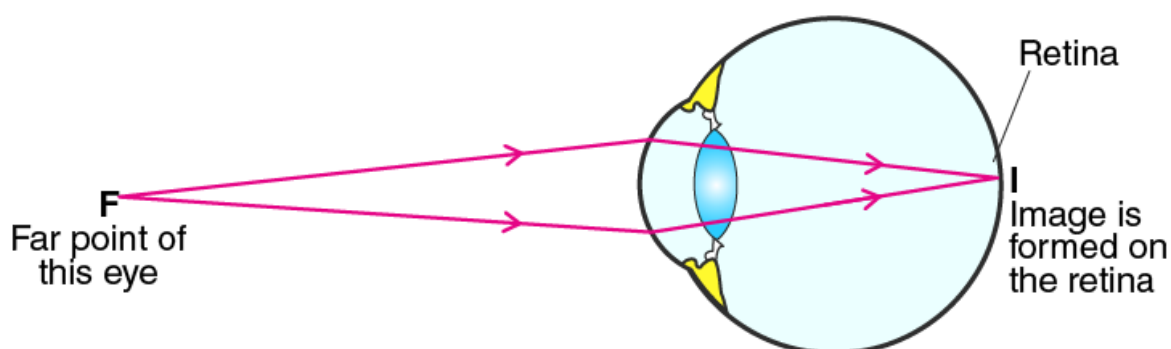
Myopia is also known as short-sightedness in which the person finds difficulty in seeing objects that are placed nearby. This defect is corrected by using a concave lens. Following is the ray diagram of the correction of myopia:

a) The image is formed in front of the eye.

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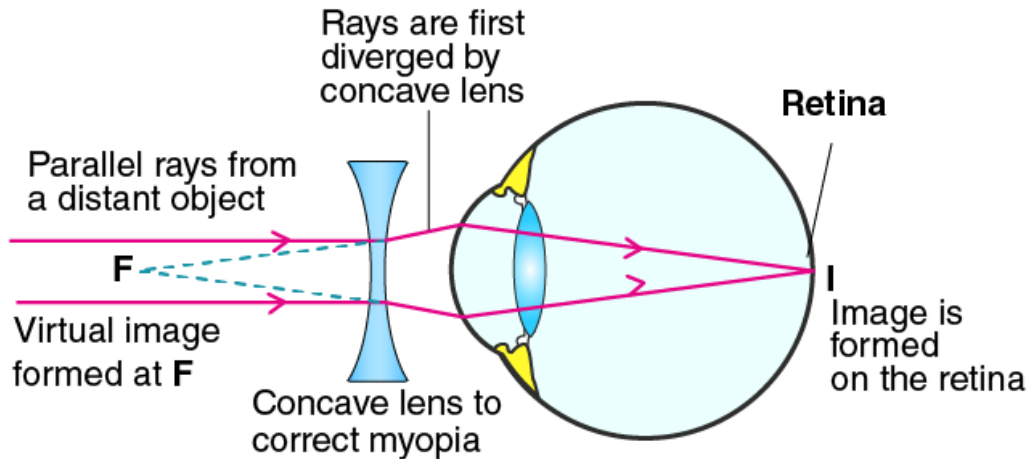


b) The far point of a myopic eye is less than infinity.



c) Correction of myopia is done with the help of a concave lens.

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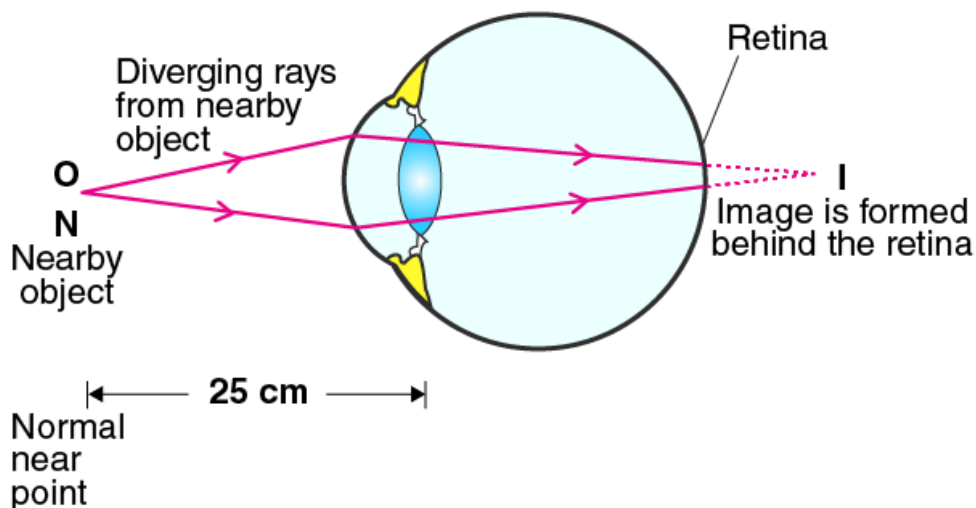


Q26. Explain with the help of a labelled ray diagram, the defect of vision called hypermetropia and how it is corrected by a lens.

Answer:

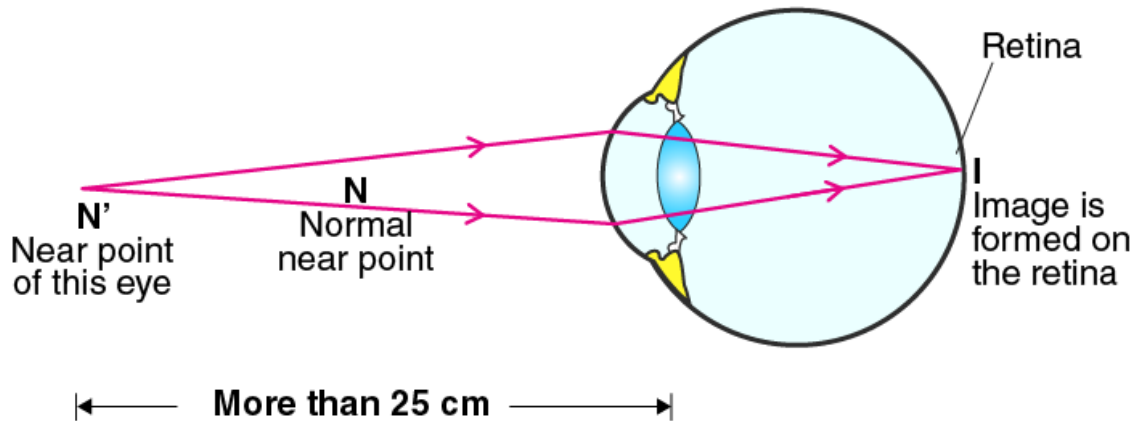
Hypermetropia is also known as long-sightedness in which the person cannot see the nearby objects clearly. The defect can be corrected by placing a convex lens. Following is the ray diagram:

a) In hypermetropic eye, the image of a nearby object is formed behind the retina.

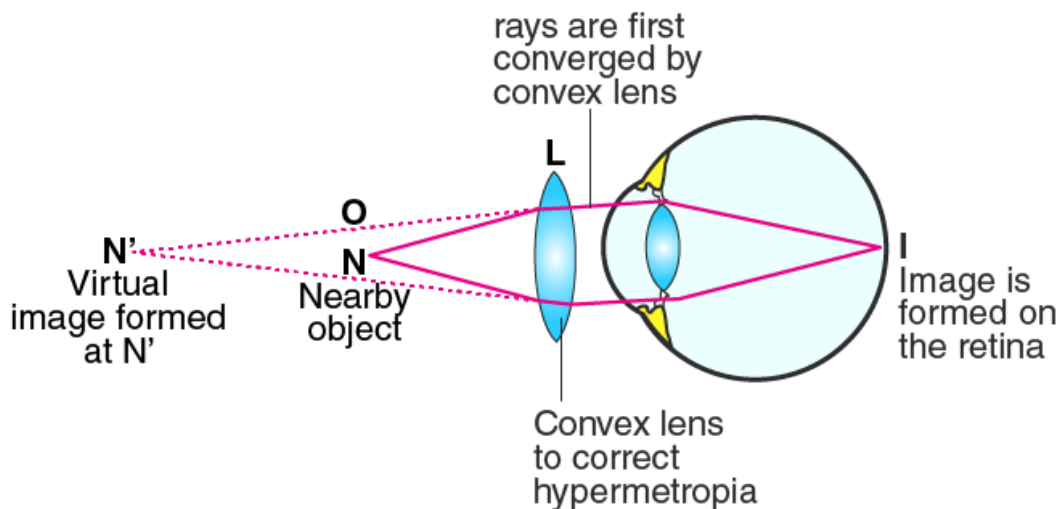


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b) The near point for hypermetropic eye is N' which is farther away from the normal near point.



c) Hypermetropia is corrected using a convex lens in which the virtual image is formed at the near point N'



Q27. A person suffering from the eye defect myopia can see clearly only up to a distance of 2 metres. What is the nature and power of lens required to rectify this defect?

Answer:

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A person suffering from myopia can use concave lens.

Given,

The far point of myopic eye = 2m

Object distance, $u = \text{infinity}$

Image distance, $v = 2\text{m}$

$$1/v - 1/u = 1/f$$

$$f = -2\text{m}$$

$$P = 1/f = 1/-2 = -0.5\text{D}$$

Q28. The near point of a person suffering from hypermetropia is at 50cm from his eye. What is the nature and power of the lens needed to correct this defect?

Answer:

The person suffering from hypermetropia needs to use convex lens.

Given,

Object distance, $u = -25\text{cm}$

Image distance, $v = -50\text{cm}$

$$1/v - 1/u = 1/f$$

$$f = 50\text{cm}$$

$$P = 100/f = 100/50 = 2\text{D}$$

Q29. A person needs a lens of power -5.5 dioptres for correcting his distant vision. For correcting his near vision, he needs a lens of power +1.5 dioptres. What is the focal length of the lens required for correcting

a) Distant vision

b) Near vision

Answer:

a) For distant vision,

$$P = -5.5\text{D}$$

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$$P = 1/f$$

$$f = 1/P = -18.18\text{cm}$$

b) For near vision,

$$P = 1.5\text{D}$$

$$P = 1/f$$

$$f = 1/P = 66.66\text{cm}$$

Q30. What is presbyopia? Write two causes of this defect. Name the type of lens which can be used to correct presbyopia.

Answer:

Presbyopia is the vision defect in which a person finds difficulty in seeing the nearby objects due to loss of power of accommodation of the eye. This happens because of weakening of the ciliary muscles and the diminishing flexibility of the eyes. This is corrected by using convex lens.

Q31. When is a person said to have developed cataract in his eye? How is the vision of a person having cataract restored?

Answer:

A person is said to have developed cataract in his eye when there is progressive cloudy formation resulting in blurred vision. This defect is corrected by surgery. Also, an opaque lens is removed from the eye and a new artificial lens is replaced.

Q32. Fill in the following blanks with suitable words:

A person is short-sighted if his eyeball is too Spectacles with a lens are needed. A person is long-sighted if his eyeball is too Spectacles with a lens are needed. These focus light rays exactly on to the

Answer:

Long, concave, short, convex, and retina.

Long Answer Type Questions

Q33. a) What is short-sightedness? State the two causes of short-sightedness. With the help of ray diagram, show:

i) the eye defect short-sightedness

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ii) correction of short-sightedness by using a lens

b) A person having short-sight cannot see objects clearly beyond a distance of 1.5m. What would be the nature and power of the corrective lens to restore proper vision?

Answer:

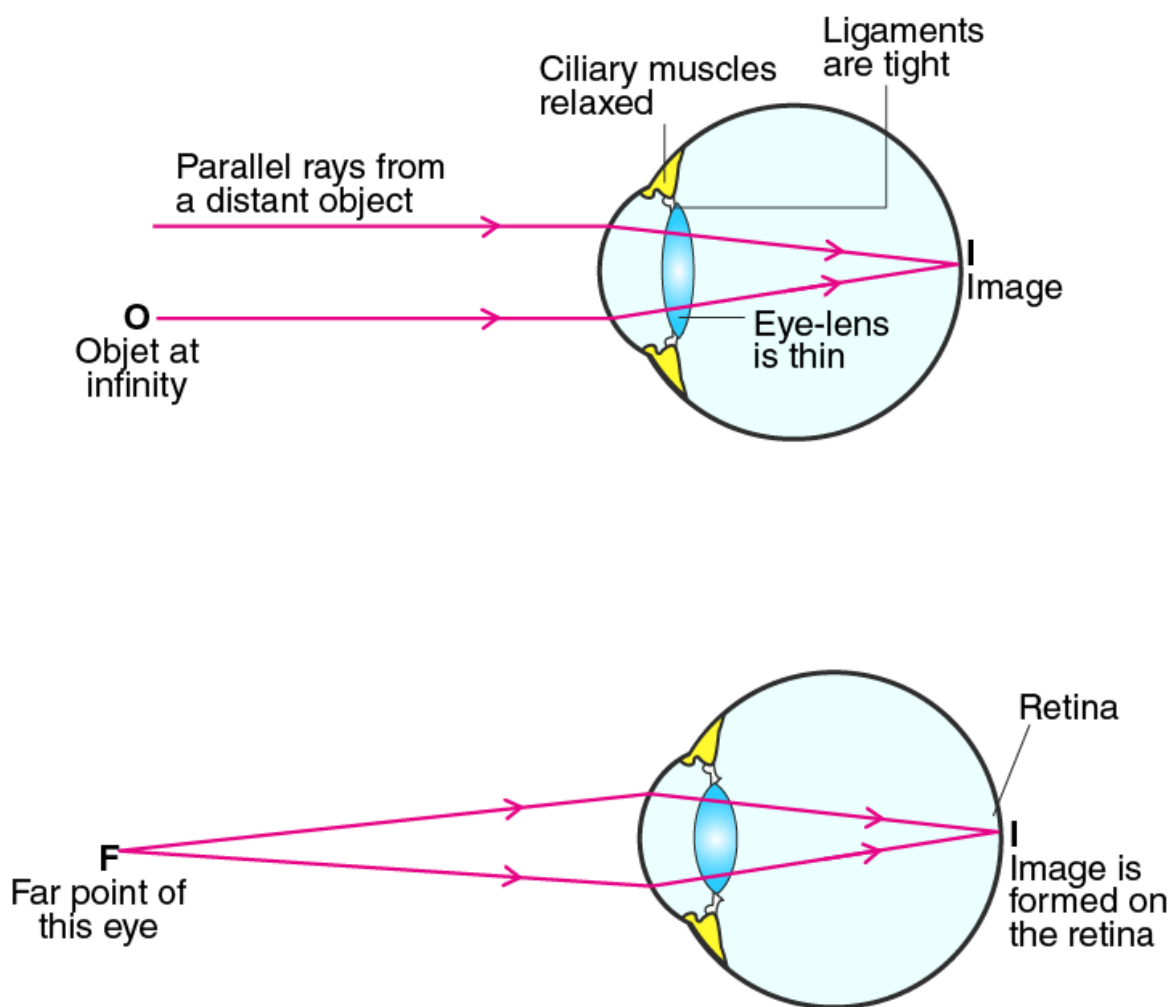
a) Short sightedness is the defect in which a person finds difficulty in seeing objects that are kept nearby. Following are the two causes of short sightedness:

i) Excessive curvature of the eye lens

ii) Elongation of the eyeball

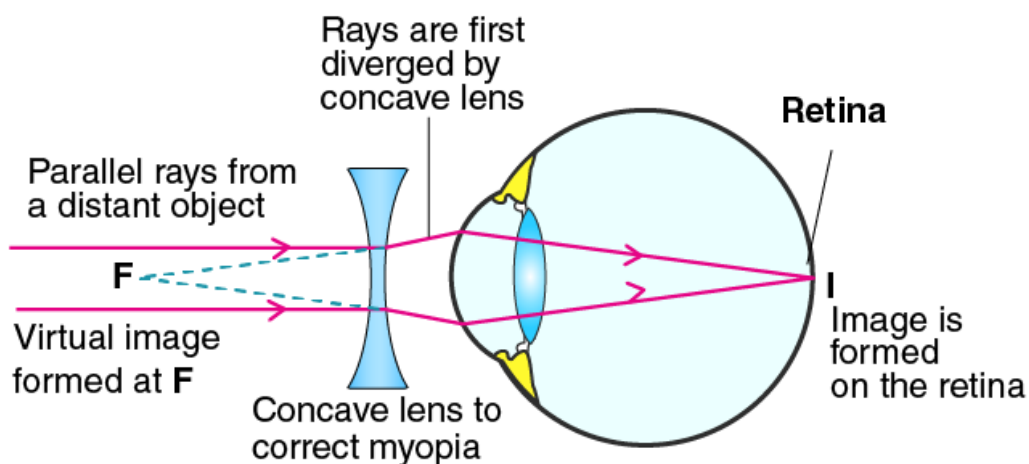
Ray diagram of short sightedness:

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Ray diagram of correction of short sightedness:

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b) Concave lens is used for restoring the proper vision.

Given,

The far point of myopic eye = 1.5m

Object distance, u = infinity

Image distance, v = 1.5m

$$\frac{1}{v} - \frac{1}{u} = \frac{1}{f}$$

$$f = -1.5\text{m}$$

$$P = \frac{1}{f} = \frac{1}{(-1.5)} = -0.67\text{D}$$

Q34. a) What is long-sightedness? State the two causes of long-sightedness. With the help of ray diagram, show:

i) the eye defect long sightedness

ii) correction of long-sightedness using a lens

b) An eye has a near point distance of 0.72m. What sort of lens in spectacles would be needed to reduce the near point distance to 0.25m? Also, calculate the power of lens required. Is this eye long-sighted or short-sighted?

c) An eye has far point of 2m. What type of lens in spectacles would be needed to increase the far point to infinity? Also, calculate the power of lens required. Is this eye long-sighted or short-sighted?

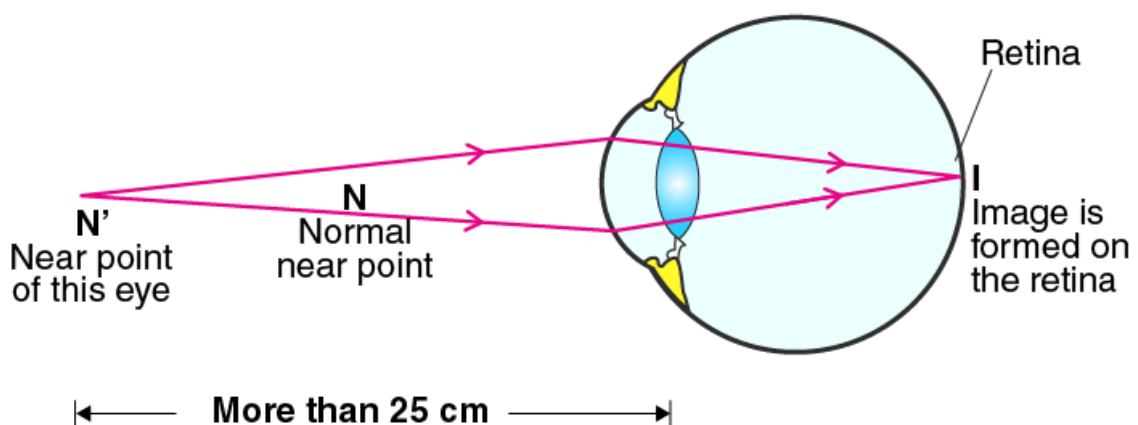
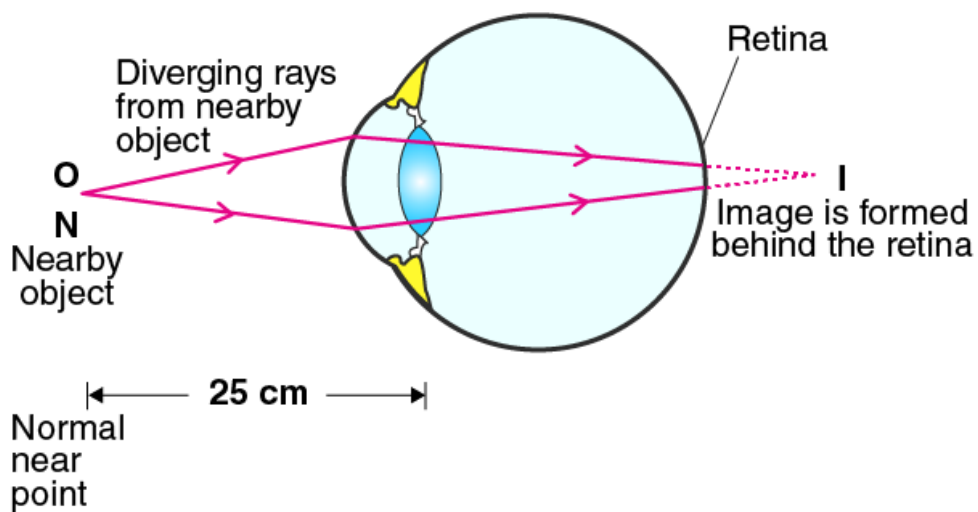
<https://www.indcareer.com/schools/lakhmir-singh-manjit-kaur-solutions-for-class-10-physics-part-1-chapter-6-the-human-eyes-and-the-colourful-world/>

Answer:

a) Long sightedness is the defect in which a person cannot see the objects that are placed at a distance but can see objects that are nearby. Following are the two causes of long sightedness:

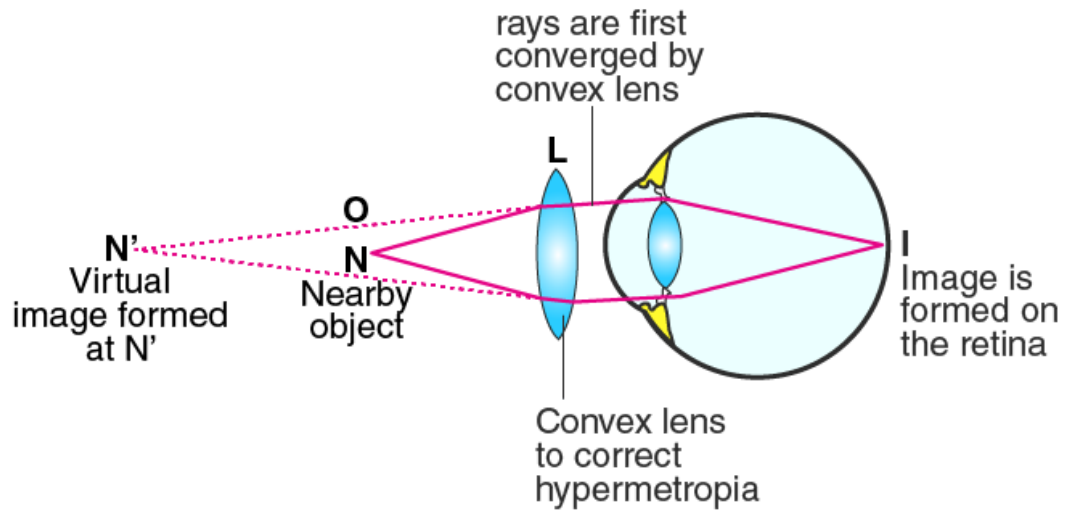
- i) Focal length of the eye lens is too long.
- ii) The eyeball has become too small.

Ray diagram for long-sightedness:



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Ray diagram of correction of long sightedness:



b) Convex lens is used for rectifying the long sightedness.

Given,

Object distance, $u = -0.25\text{m}$

Image distance, $v = -0.75\text{m}$

$$\frac{1}{v} - \frac{1}{u} = \frac{1}{f}$$

$$f = \frac{3}{8}\text{m}$$

$$P = \frac{1}{f} = 2.67\text{D}$$

The eye is long sighted.

c) Concave lens is required.

Given,

Object distance, $u = \text{infinity}$

Image distance, $v = 2\text{m}$

$$f = -2\text{m}$$

$$P = \frac{1}{f} = -0.5\text{D}$$

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The eye is short-sighted

Multiple Choice Questions

Q35. The human eye can focus objects at focus objects at different distances by adjusting the focal length of the eye-lens. This is due to:

- a) presbyopia
- b) accommodation
- c) near-sightedness
- d) far-sightedness

Answer:

The correct answer is b) accommodation

Q36. The defect of vision which cannot be corrected by using spectacles is:

- a) myopia
- b) presbyopia
- c) cataract
- d) hypermetropia

Answer:

The correct answer is c) cataract

Q37. A person cannot see the distant objects clearly. He is suffering from the defect of vision called:

- a) cataract
- b) hypermetropia
- c) myopia
- d) presbyopia

Answer:

The correct answer is c) myopia

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Q38. Though a woman can see the distant objects clearly, she cannot see the nearby objects clearly. She is suffering from the defect of vision called:

- a) long-sight
- b) short-sight
- c) hind-sight
- d) mid-sight

Answer:

The correct answer is a) long-sight

Q39. A young man has to hold a book at arm's length to be able to read it clearly. The defect of vision is:

- a) astigmatism
- b) myopia
- c) presbyopia
- d) hypermetropia

Answer:

The correct answer is d) hypermetropia

Q40. After testing the eyes of a child, the optician has prescribed the following lenses for his spectacles:

Left eye: +2.00D

Right eye: +2.25D

The child is suffering from the defect of vision called:

- a) short-sightedness
- b) long-sightedness
- c) cataract
- d) presbyopia

Answer:

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The correct answer is b) long-sightedness

Q41. A person got his eyes tested. The optician's prescription for the spectacles reads:

Left eye: -3.00D

Right eye: -3.50D

The person is having a defect of vision called:

- a) presbyopia
- b) myopia
- c) astigmatism
- d) hypermetropia

Answer:

The correct answer is b) myopia

Q42. A student sitting on the last bench in the class cannot read the writing on the blackboard clearly but he can read the book lying on his desk clearly. Which of the following statement is correct about the student?

- a) the near point of his eyes has receded away
- b) the near point of his eyes has come closer to him
- c) the far point of his eyes has receded away
- d) the far point of his eyes has come closer to him

Answer:

The correct answer is d) the far point of his eyes has come closer to him

Q43. A man driving a car can read a distant road sign clearly but finds difficulty in reading the odometer on the dashboard of the car. Which of the following statement is correct about this man?

- a) the near point of his eyes has receded away
- b) the near point of his eyes has come closer to him
- c) the far point of his eyes has receded away

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d) the far point of his eyes has come closer to him

Answer:

The correct answer is a) the near point of his eyes has receded away

Q44. The defect of vision in which the eye-lens of a person gets progressively cloudy resulting in blurred vision is called:

- a) myopi
- b) presbyopia
- c) colourblindness
- d) cataract

Answer:

The correct answer is d) cataract

Q45. A person cannot see distant objects clearly. His vision can be corrected by using the spectacles containing:

- a) concave lenses
- b) plane lenses
- c) contact lenses
- d) convex lenses

Answer:

The correct answer is a) concave lenses

Q46. A person finds difficulty in seeing nearby objects clearly. His vision can be corrected by using spectacles containing:

- a) converging lenses
- b) diverging lenses
- c) prismatic lenses
- d) chromatic lenses

Answer:

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The correct answer is a) converging lenses



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