

SSLC-FIRST BELL 2.0-BIOLOGY-CLASS-10-WORKSHEET

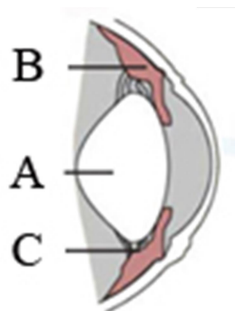
Chapter – 2

Windows of Knowledge

- Location of a fluid in the eye is given.
‘Filled in the space between the cornea and the lens’.
a) Which is that fluid?
b) How is it formed?
c) What is the function of this fluid?
- The human eye has three types of cone cells for detecting the colours red, green and blue.
a) Name the visual pigment in these cone cells and its components.
b) Why are cone cells different from one another?
- Classify the following statement in the given table.
a) It is a jelly- like fluid.
b) It nourishes the tissues of the eye.
c) Present in the chamber between the retina and the lens.
d) It is a watery fluid.
e) Present in the chamber between the lens and the cornea.
f) It helps in maintaining the shape of the eye.

Aqueous humour	Vitreous humour

- Observe the figure and answer the questions.



- What is the situation shown in the pictures?
- Name the part indicated by A?
- How do the parts indicated by B and C at in the situation?

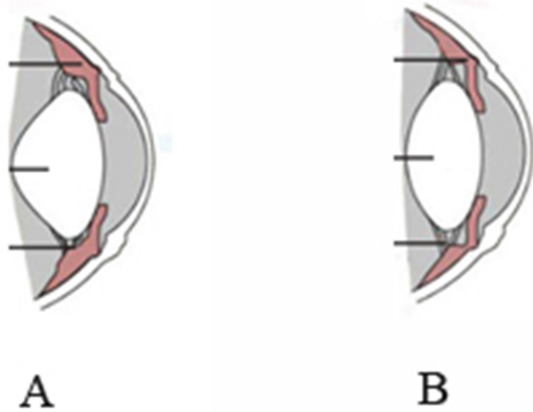
- Complete the given table.

	View near objects	View distant objects
Ciliary muscles	a)	b)
Ligaments	c)	d)
Focal length of lens	Decreases	e)
Curvature of lens	f)	Decreases

6. Identify and write the name of the photoreceptor given below. Name the pigment present in it.



7. Analyse the figures related to the power of accommodation of the eye and answer the questions.



- a) Which is the figure that indicates the change in lens while viewing near objects?
b) What change occurs in the curvature of lens while viewing distant objects? How do ciliary muscles and ligaments help for this?

8. The process that is responsible for the generation of impulses in photoreceptor cell is

- a) The dissociation of visual pigments in presence of light.
b) Formation of Vitamin A in presence of light.
c) The transmission of signals to the cerebrum through the optic nerve.
d) The association of retinal and opsin.

9. Which of the following actions helps to regulate the size of the pupil according to the intensity of light

- a) Action of the ciliary muscles.
b) Contraction of ligaments.
c) Contraction and expansion of the iris muscles.
d) Changes in the curvature of the lens.

10. Observe the figure and answer the questions.



A



B

- a) Identify the cells named A and B.
- b) What is the role of these cells in giving vision?
- c) When light falls on these cells, how are impulses formed?

11. Fill in the blanks in the statement.

There are three types of cone cells in the human eye. They are different from one another due to the difference in the that opsin molecule contains.

- 12. i) The fluid filled in the aqueous chamber between the lens and the cornea called “A’ nourishes the tissues of the eye.
- ii) The jelly like substance is seen in the ‘B’ called ‘C’ helps in maintaining the shape in the eye.

- a) In the above statements what do A, B and C represent?
- b) How do conjunctiva and tear protect the eye?

13. Write the activities that take place before impulses are generated on the retina.

- From objects light rays pass through the cornea, the aqueous humor, pupil and vitreous humor and focusses on the retina.
- An image is formed on the retina.
- Photoreceptors are stimulated.

14. ‘It is iris that helps to regulate the size of the pupil’. Do you agree with the statement? Why?

15. Provides nourishment to the tissues of the eye:

- a) Vitreous humor b) Aqueous humor c) Cerebrospinal fluid d) All of these

16. Find out the statement related to long sight.

- a) Focal length decreases.
- b) Eyeball is longer than normal.
- c) Eyeball is shorter than normal.
- d) Focal length increases.

17. Complete the table suitably.

Part	Function
a)	Nourishes the tissues of eye
vitreous fluid	b)
c)	The inner ear apparatus that keeps body balance.
Lateral line	d)

18. Light rays which reflect from the object of focused on the retina and images formed.

- a) Write the peculiarities of this image.
- b) How does the image formed in the two eyes combine? What is its advantage?

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19. A fluid is formed in the eyes just as the cerebrospinal fluid is found in the brain.
- Name the fluid?
 - What is its function?

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