



THIRUVANANTHAPURAM EDUCATIONAL DISTRICT

STD: X

Biology

Time: 90 minutes

Score: 40

Answer any 5 questions from 1 to 6. Each carries 1 score. (1X5=5)

1. Identify the word pair relationship and fill in the blank.

Glaucoma: Reabsorption of aqueous humour does not occur.

Cataract: -----.

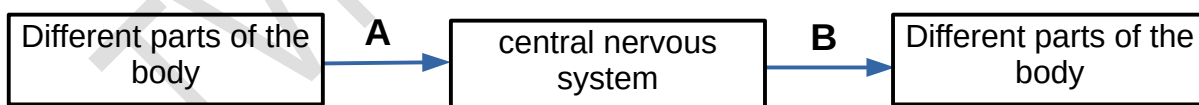
2. Which of the following statement is true about the yellow spot?

- a) There is no vision at this point.
- b) Photoreceptors are absent here.
- c) The optic nerve begins from this point.
- d) This is the point of maximum visual clarity.

3. Find the odd one and write the common feature of others.

Taste, Thirst, Smell, Touch.

4. Identify A and B



5. Name the fluid formed in the eye just as the cerebrospinal fluid formed in the brain.

6. Analyse the given statement and write the reason.

“Tears can destroy germs.”

Answer any 6 questions from 7 to 13. Each carries 2 scores. (2X6=12)

7. Correct mistakes if any in the underlined part of the given statements.

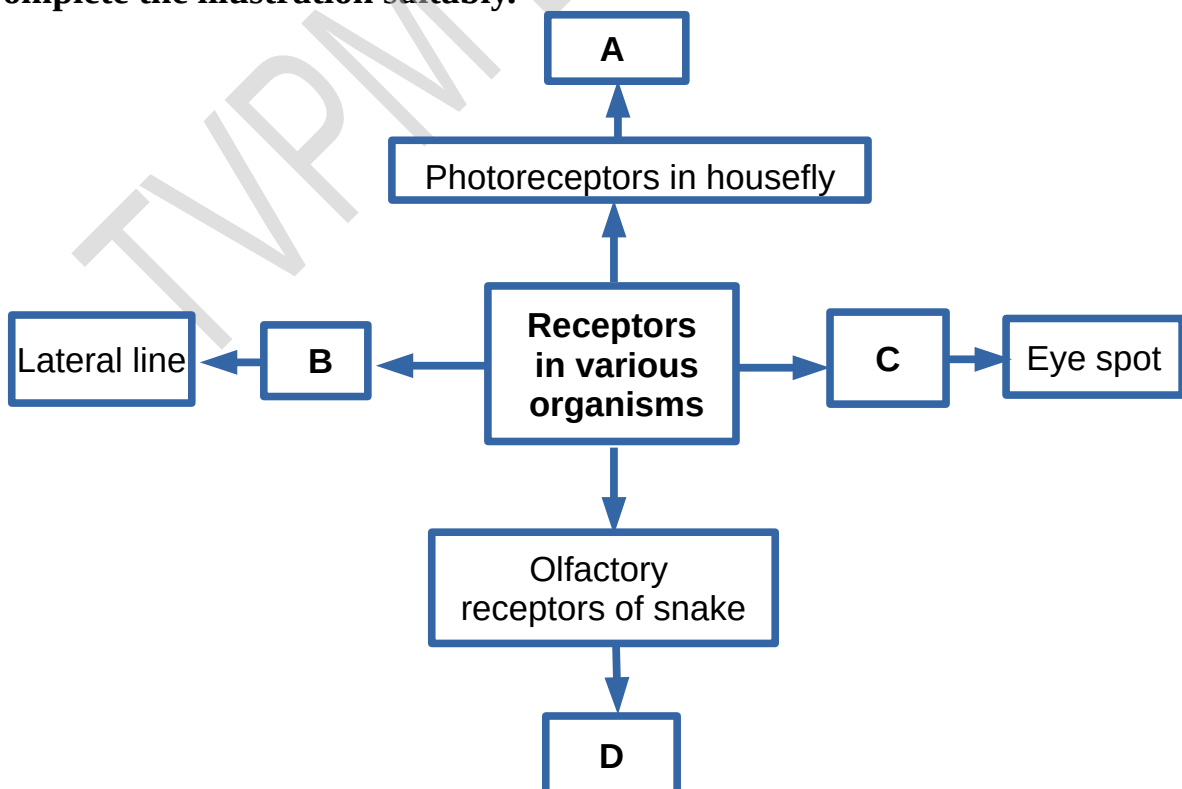
- a) Receptors are the specialized cells in the sense organs and other parts of the body to receive stimuli.
- b) Colour blindness is caused due to the defect in the rod cells.
- c) The aromatic particles dissolve in mucus to stimulate the olfactory receptors.
- d) The senses that evoke responses in organisms are called impulses.

8. Observe the figure of a receptor given below.



- a) Name the receptor.
- b) In which sense organ is it seen?

9. Complete the illustration suitably.

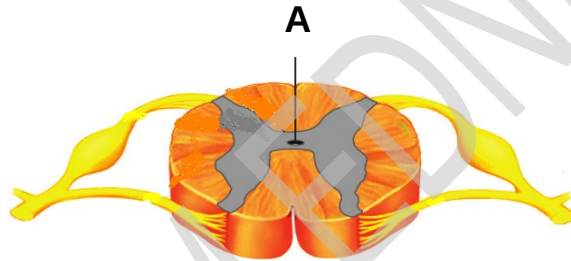


10. Observe the figures given below and answer the questions.



- Identify **A** and **B**.
- Name the pigment present in **A**.

11. Observe the cross section of spinal cord and answer the questions given below.



- What does '**A**' indicate?
- What is the difference between the impulses transmitted through dorsal root and ventral root?

12. The activities related to the sense of taste are given below. Arrange them in correct order.

- Impulses are generated.
- Taste particles dissolve in saliva.
- Nerve carries impulses to the brain.
- Taste receptors are stimulated.
- Experiences the sense of taste.

13. "Synapse is the junction between only two neurons"

Do you agree with the statement? Why?

Answer any 5 questions from 14 to 19. Each carries 3 scores. (3X5=15)

14. Given below are the symptoms of two persons.

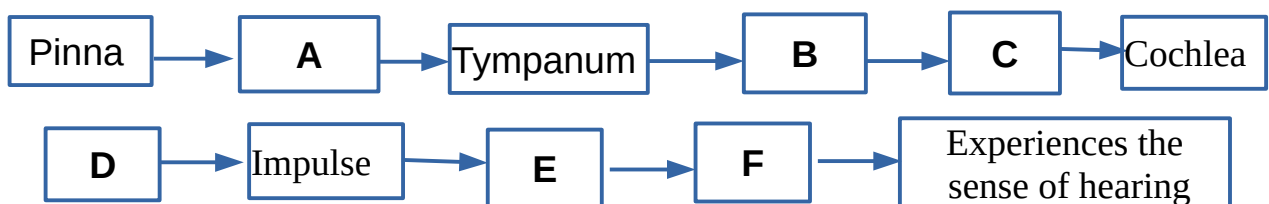


- a) Identify the diseases of persons A and B.
- b) Write down the cause of the disease in person A.

15. The table given below is related to the parts of the brain. Complete the blanks suitably.

Part	Peculiarity	Function
A	B	Centre of thought, memory and imagination.
Cerebellum	The second largest part	C
Medulla oblongata	The rod shaped part seen below the cerebrum, located near the cerebellum.	D
E	Situated below the cerebrum	Acts as the relay station of impulses.
F	Situated below the thalamus.	Plays a major role in homeostasis.

16. Analyse the flow chart related to hearing and complete it suitably.



17. Observe the illustration showing the charge difference on either side of the plasma membrane of axon and answer the questions given below.

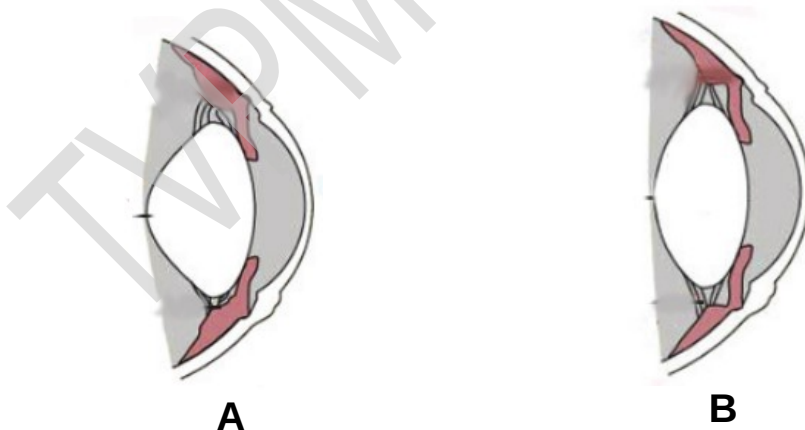


- What is the reason for the charge difference on either side of the plasma membrane?
- What change occurs when it is stimulated? How is it transmitted as an impulse?

18. The activities related to the autonomous nervous system are given below. Tabulate them under suitable headings.

- pupil dilates.
- hormone production decreases.
- glucose gets converted to glycogen.
- peristalsis slows down.

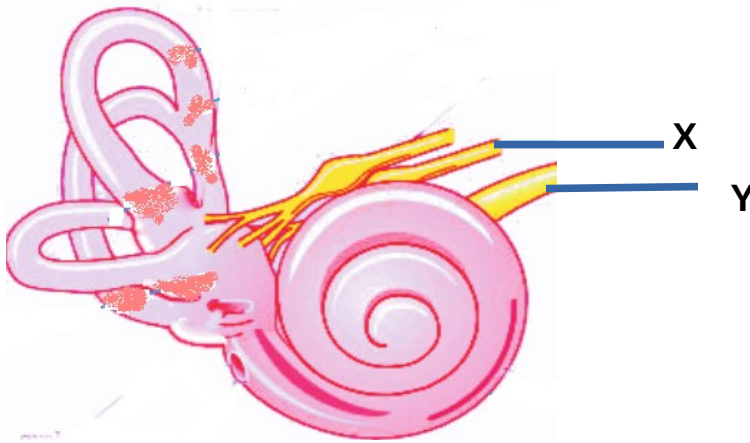
19. Analyse the figures related to the power of accommodation in human eye and answer the following questions.



- Which picture indicates the change of lens, while viewing a nearby object?
- What change occurs to the curvature of the lens while viewing a distant object? How do ciliary muscles and ligaments help in this process?

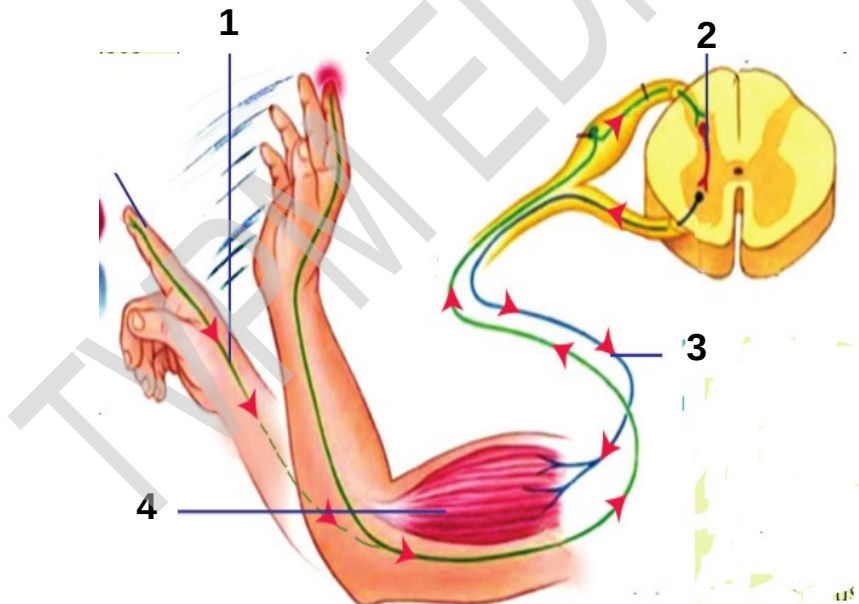
Answer any 2 questions from 20 to 22. Each carries 4 scores. (4X2 = 8)

20. Observe the figure and answer the following questions.



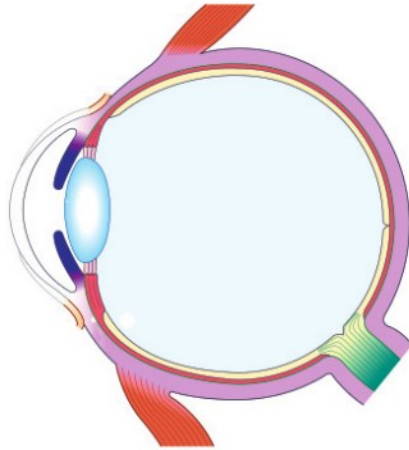
- What does the figure indicate?
- Identify X and Y.
- Name the parts that help to regulate body balance?

21. Analyse the illustration and answer the questions given below.



- Name the type of response indicated here.
- Name two kinds of such responses.
- Write down the parts labelled from 1 to 4.

22. Redraw the structure of eye and label the parts, analysing the peculiarities listed below.



- a) The transparent anterior part of sclera.
 - b) The chamber filled with the fluid that helps to maintain the shape of the eye.
 - c) The part that transmits impulses from the photoreceptors to the visual centre of the brain.
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