ICSE 2027 PRACTICE QUESTION BANK

BIOLOGY (SCIENCE PAPER 3) — NERVOUS SYSTEM

Class X Syllabus 3(iii): Neuron, CNS / autonomic / peripheral NS, brain, spinal cord, reflex action; sense organs — Eye and Ear

How to use this bank. All questions are taken from the T23, T24, T25 and T26 board papers, the T24 and T26 specimen papers and the T27 specimen paper, and are arranged in the format of the T27 specimen paper (MCQs, name / arrange, short answers, case-based, diagram). Each question carries its source tag in grey. Attempt each part cold, then check the answer key at the end. Part A is the core Nervous System; Part B is Eye and Ear.

Syllabus diagrams to practise from memory (not asked in these papers): neuron, reflex arc (receptor to effector), external view of the brain, internal structure of the eye, internal structure of the ear, myopia and hyperopia with correction.

PART A — NERVOUS SYSTEM (CORE)

Question 1 [8]

Choose the correct answers to the questions from the given options. (Do not copy the question, write the correct answers only.)

(i) As the school bell rang for the lunch break, Tina's mouth started watering thinking of her favourite food in the lunch box. This is a/an: [1]

(a) voluntary action
(b) somatic reflex
(c) acquired reflex
(d) natural reflex

Source: T27 Specimen Q1(ix)

(ii) Bharat woke up late in the morning and missed the school bus. This situation stimulated the nerves of the sympathetic system which resulted in: [1]

(a) Constriction of coronary arteries
(b) Muscle relaxation
(c) Decrease in respiration rate
(d) Bronchodilation

Source: T26 Q1(ix)

(iii) Reflex actions provide a survival advantage because they: [1]

(a) are controlled by the cerebrum.
(b) are controlled by the medulla oblongata.
(c) require no conscious thought, allowing rapid responses.
(d) always involve the spinal cord.

Source: T26 Specimen Q1(viii)

(iv) Karan was standing on a high stool and cleaning the ceiling fan. He suddenly loses balance and sustains a head injury. An examination reveals that his pupils have lost the capacity to constrict in bright light. Which structure has been damaged? [1]

(a) Suspensory ligaments
(b) Medulla oblongata
(c) Eye lens
(d) Eye lid

Source: T26 Q1(xi)

(v) Assertion (A): Arachnoid layer helps in speeding up the transmission of nerve impulses along the axons. [1]

Reason (R): Axon endings at the synapse secrete acetylene.

(a) (A) is true and (R) is false.
(b) (A) is false and (R) is true.
(c) Both (A) and (R) are true.
(d) Both (A) and (R) are false.

Source: T25 Q1(xi)

(vi) Assertion (A): Sympathetic nervous system prepares the body for violent action against abnormal conditions. [1]

Reason (R): Sympathetic nervous system accelerates heartbeat.

(a) Both A and R are true
(b) A is true, R is false
(c) A is false but R is true
(d) Both A and R are false

Source: T24 Q1(xiii)

(vii) Stimulation of the nerves of the sympathetic nervous system: [1]

(a) Accelerates heartbeat
(b) Constricts pupil of eyes
(c) Increases peristalsis
(d) Retards heartbeat

Source: T23 Q1(x)

(viii) Lata wanted to cross the road. She looked on either side of the road and then walked across to the other side of the road. Which of the following is / are involved in the process described above? [1]

1. Cerebrum 2. Cerebellum 3. Skeletal muscles 4. Medulla oblongata

(a) Only 3
(b) Only 1 and 3
(c) Only 1, 3 and 4
(d) Only 1, 2 and 3

Source: T24 Specimen Q1(xv)

Question 2 **[8]**

(i) Give the biological / technical terms for the following: [5]

(a) The neurotransmitter stored in the axon endings of neurons.
(b) The fluid present between the layers of the meninges.
(c) The collective term for the protective membranes of the brain.
(d) The type of nerve that has the fibres of both sensory and motor neurons.
(e) The part of the brain that regulates the peristaltic movement of the alimentary canal.

Source: T27 Specimen Q2(i)(e); T26 Specimen Q2(i)(e); T24 Specimen Q2(i)(e); T24 Q5(i); T25 Q2(iv)(b)

(ii) Arrange the terms in each group in the correct logical sequence: [3]

(a) Receptor, Response, Effector, Spinal cord
(b) Effector, Receptor, Motor neuron, Sensory neuron
(c) Cyton, Dendrites, Synaptic cleft, Axon endings (path of an impulse through a neuron and across the synapse)

Source: T23 Q2(ii)(c); T24 Q2(ii)(c); T25 Q2(iii)(c)

Question 3 [19]

Answer the following questions.

(i) What is a reflex action? [1]

Source: T23 Q7(i)

(ii) Mention the exact location of the corpus callosum. [1]

Source: T24 Specimen Q4(i)

(iii) State the exact location of the dura mater. [1]

Source: T23 Q2(v)(b)

(iv) (a) Explain the term synapse. [2]

(b) Name the neurotransmitter that allows the transmission of impulses across the synapse.

Source: T26 Q7(iii)

(v) How are the cytons and axons of neurons arranged in the following? [2]

(a) Cerebrum

(b) Spinal cord

Source: T26 Q4(ii)

(vi) (a) Name the fluid present between the meninges in the spinal cord. [2]

(b) What is its function?

Source: T26 Q8(ii)

(vii) Mention the number of cranial nerves and spinal nerves in a human being. [2]

Source: T26 Specimen Q5(iv)

(viii) Distinguish between the sympathetic system and the parasympathetic system on the basis of heartbeat. [2]

Source: T26 Specimen Q7(ii)

(ix) Mention any two functions of the cerebellum. [2]

Source: T23 Q7(iii)

(x) Mention one function each for the cerebrum and the cerebellum. [2]

Source: T24 Specimen Q8(iii)

(xi) State the difference between a nephron and a neuron. [2]

Source: T25 Q8(ii)

Question 4 [10]

Application / case-based questions.

(i) Mohan is fond of playing basketball. His concentration is on shooting the ball into the opponent's basket, as given in the picture. [3]



(a) Which part of the brain helps Mohan to concentrate in putting the ball into the basket?

(b) Name the sense organ that helps to gauge the distance between the ball and the basket.

(c) Name the part of the brain that co-ordinates all the voluntary muscles of his body.

Source: T24 Q4(v)

(ii) Ayush was in the final round of a carrom match. He was focussing intently on the strokes of the opponent player. [2]



(a) Which part of the brain helps Ayush to focus on the game?

(b) Name the part of the brain that co-ordinates his muscles while using the striker.

Source: T26 Specimen Q3(iii)

(iii) Vineet's day begins with a cup of piping hot coffee. Caffeine is a stimulant present in coffee which increases the circulation of adrenaline in the body. Vineet feels refreshed, alert and focussed. [3]

(a) Name the organ that is stimulated by caffeine which makes Vineet alert and focussed.

(b) Give the collective term for the protective membranes of the organ mentioned in (a).

(c) Which part of the autonomic nervous system increases the secretion of adrenaline?

Source: T25 Q7(v)

(iv) Given below is the picture of an eagle. Eagles have binocular vision. What is the advantage of such a vision? [2]

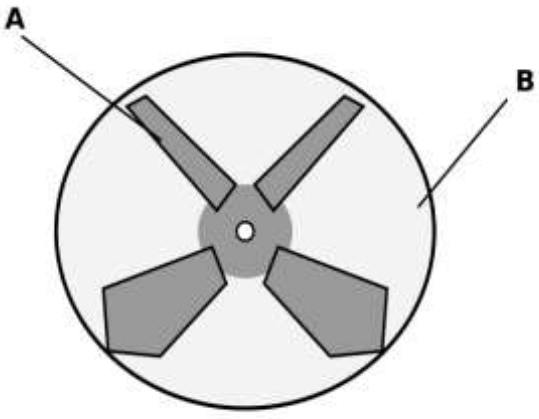


Source: T26 Q3(ii)

Question 5 **[3]**

Diagram-based question.

(i) Copy the diagram given below. [3]



Transverse section of a structure of the nervous system

(a) Name the structure.

(b) Label the grey matter and the white matter.

Source: T26 Q6(v) (diagram redrawn)

PART B — SENSE ORGANS: EYE AND EAR

Question 6 [8]

Choose the correct answers to the questions from the given options. (Do not copy the question, write the correct answers only.)

(i) Aruna went to a theatre to watch a movie on a bright sunny morning. As she came out of the theatre, she felt a dazzling effect and could not open her eyes. After a few minutes her vision became normal. This is due to: [1]

(a) Accommodation of eye
(b) Mutation
(c) Polarisation
(d) Adaptation of eyes

Source: T26 Specimen Q1(vii)

(ii) Aditya is fond of roller skating. Identify the correct terms which help him to maintain his body balance: [1]

(a) Cerebellum, Semicircular canals, Vestibule
(b) Vestibule, Sclera, Cerebrum
(c) Malleus, Semicircular canals, Utriculus
(d) Sacculus, Stapes, Cochlea

Source: T26 Specimen Q1(xv)

(iii) The structure that lies at the junction of the choroid and the iris and is itself a part of the choroid is called: [1]

(a) Ciliary body
(b) Suspensory ligament
(c) Pupil
(d) Lens

Source: T25 Q1(ii)

(iv) Owls are nocturnal animals. They are active at night and hunt small animals for food. Owls have large eyes and can see well at night. This is due to: [1]

(a) Cones and rhodopsin
(b) Rods and iodopsin
(c) Rods and rhodopsin
(d) Cones and iodopsin

Source: T25 Q1(xiii)

(v) The ear ossicle that transports sound vibrations to the inner ear: [1]

(a) Stapes
(b) Malleus
(c) Incus
(d) Cochlea

Source: T24 Q1(vii)

(vi) Adjusting the focal length of the eye lens to view objects at different distances is done by: [1]

(a) Cornea
(b) Iris
(c) Ciliary muscles
(d) Sclera

Source: T24 Q1(ix)

(vii) Vitreous humour is present between: [1]

(a) Cornea and iris
(b) Lens and retina
(c) Iris and lens
(d) Cornea and lens

Source: T23 Q1(xiii)

(viii) While playing with his friends, Peter inserted a stick into his ear. He lost his hearing due to the rupture of: [1]

(a) Ear drum
(b) Pericardium
(c) Cornea
(d) Pinna

Source: T24 Specimen Q1(iii)

Question 7 [21]

(i) Name the following: [3]

(a) A defect in our eye in which some parts of the object are in focus while the other parts are blurred.
(b) The ear ossicle which opens into the oval window of the cochlea.
(c) A structure that collects the sound waves and conducts them through the external auditory canal.

Source: T26 Q2(i)(b) / T24 Q2(i)(b); T25 Q2(i)(c); T25 Q2(iv)(c)

(ii) Rajeev, a 10-year-old boy, went to an ophthalmologist to get his eyes tested. He noticed a poster in the clinic with questions related to the parts of the human eye. Help Rajeev answer the questions: [5]

(a) Which is the fluid that lubricates the eye?
(b) Which cells help in colour vision?
(c) Which nerve sends impulses from the eyeball to the brain?
(d) Name the structure that gives colour to the eyes.
(e) Name the part that allows entry of light rays into the eye.

Source: T26 Specimen Q2(iv)

(iii) Arrange the terms in each group in the correct order: [3]

(a) Fovea, Lens, Cornea, Conjunctiva (path of light)
(b) Pupil, Aqueous humour, Retina, Vitreous humour (path of light)
(c) Cochlea, Malleus, Pinna, Stapes (path of sound)

Source: T23 Q2(ii)(d); T24 Q2(ii)(b); T24 Specimen Q2(ii)(b)

(iv) Choose the odd one out and name the category to which the remaining three belong: Malleus, Incus, Cochlea, Stapes. [1]

Source: T23 Q2(iv)(e)

(v) Fill in the blanks with suitable words: The technical term for short-sightedness is (a) _____. This defect is caused because the eyeball is (b) _____ from front to back or the lens is too (c) _____. It can be corrected by using a suitable (d) _____ lens. The power of the lens is mentioned in (e) _____. [5]

Source: T24 Specimen Q2(iii)

(vi) Tanya, a ten-year-old girl, had a severe earache. Her mother took her to an ENT doctor for a checkup. The doctor noticed that she had a throat infection which had spread to her ear. Answer the following questions: [5]

(a) Name the structure that connects the throat and ear.

(b) What is the collective term for the three cartilaginous structures present in the middle ear?

(c) Which is the sensory organ located in the cochlea?

(d) What is the significance of the tiny hair present in the auditory canal?

(e) What is the function of the auditory nerve?

Source: T27 Specimen Q2(iv) [official]

Question 8 [28]

Answer the following questions.

(i) What is the reason for hyperopia? How can it be corrected? [2]

Source: T27 Specimen Q8(iii) [official]

(ii) Tara's grandmother is 70 years old and has a passion for embroidery. She faces difficulty in threading the needle as the eye of the needle appears blurred. The ophthalmologist diagnosed it as an age-related disorder. [3]

(a) Name the eye disorder she is suffering from.

(b) How can the above defect be corrected?

(c) Where is the image formed in the above disorder?

Source: T26 Q5(v)

(iii) A teacher drew the diagram of the heart on the blackboard and told the students to copy it. Mahesh could not see the diagram clearly as it appeared blurred to him. [3]

(a) Name the defect of the eye Mahesh is suffering from.

(b) Where is the image formed in this defect?

(c) Which type of lens do his spectacles have?

Source: T24 Q7(v)

(iv) Mr. Sharma is a 76-year-old man. His vision was gradually becoming blurred. He consulted an eye doctor and it was diagnosed as cataract. [2]

(a) Which part of the eye does cataract affect?

(b) Why does the vision become blurred?

Source: T25 Q6(iv)

(v) Name the two sensory cells in the retina meant for light adaptation. [2]

Source: T24 Specimen Q8(ii)

(vi) Which parts of the ear are responsible for: (a) static equilibrium? (b) dynamic equilibrium? [2]

Source: T24 Q7(ii)

(vii) Distinguish between the semicircular canals and the utriculus based on their function. [2]

Source: T23 Q7(iv)

(viii) Rachna is an expert gymnast on the balance beam. She has been vigorously practising for the Olympic Games. Lately, she has been experiencing dizziness and losing her balance during the practice sessions. [2]

(a) Which part of the membranous labyrinth is responsible for maintaining the body balance on the beam?

(b) Which type of balance is maintained by the structure mentioned in (a)?

Source: T25 Q5(iv)

(ix) Which part of the ear equalizes air pressure on either side of the ear drum? Where is this structure located? [2]

Source: T26 Specimen Q6(iv)

(x) We should not insert sharp objects into the ear to remove ear wax. Give a suitable reason. [2]

Source: T26 Specimen Q8(iv) [official]

(xi) Ahmed had a severe throat infection. After a few days he developed an earache too. What could be the reason for the pain in his ears? Explain. [2]

Source: T25 Q6(iii)

(xii) Rajat Singh was working as a supervisor in a stone quarry where rock, sand and gravel are extracted by digging, drilling and blasting. As the years rolled by, Rajat started facing a loss in hearing. The high decibel sounds had damaged a part of his internal ear, though the tympanic membrane was intact. [3]

(a) Give the collective term for the structure located in the internal ear.

(b) Name the sensory organ in the cochlea which was damaged for Rajat Singh.

(c) What kind of pollution do the workers face in the stone quarry?

Source: T26 Q8(v)

ANSWER KEY

PART A — NERVOUS SYSTEM (CORE)

Question 1

(i) As the school bell rang for the lunch break, Tina's mouth started watering thinking of her favourite food in the lunch box. This is a/an:

(c) acquired reflex [official]

(ii) Bharat woke up late in the morning and missed the school bus. This situation stimulated the nerves of the sympathetic system which resulted in:

(d) Bronchodilation

(iii) Reflex actions provide a survival advantage because they:

(c) require no conscious thought, allowing rapid responses [official]

(iv) Karan was standing on a high stool and cleaning the ceiling fan. He suddenly loses balance and sustains a head injury. An examination reveals that his pupils have lost the capacity to constrict in bright light. Which structure has been damaged?

(b) Medulla oblongata (only brain structure among the options; it controls involuntary reflex actions)

(v) Assertion (A): Arachnoid layer helps in speeding up the transmission of nerve impulses along the axons.

Reason (R): Axon endings at the synapse secrete acetylene.

(d) Both false. The myelin sheath (not the arachnoid) speeds up conduction, and the neurotransmitter is acetylcholine, not acetylene.

(vi) Assertion (A): Sympathetic nervous system prepares the body for violent action against abnormal conditions.

Reason (R): Sympathetic nervous system accelerates heartbeat.

(a) Both A and R are true

(vii) Stimulation of the nerves of the sympathetic nervous system:

(a) Accelerates heartbeat

(viii) Lata wanted to cross the road. She looked on either side of the road and then walked across to the other side of the road. Which of the following is / are involved in the process described above?

1. Cerebrum 2. Cerebellum 3. Skeletal muscles 4. Medulla oblongata

(d) Only 1, 2 and 3 (cerebrum decides and sees; cerebellum coordinates walking; skeletal muscles move the body)

Question 2

(i) Give the biological / technical terms for the following:

- **(a)** Acetylcholine
- **(b)** Cerebrospinal fluid (CSF)
- **(c)** Meninges
- **(d)** Mixed nerve
- **(e)** Medulla oblongata

(ii) Arrange the terms in each group in the correct logical sequence:

(a) Receptor → Spinal cord → Effector → Response

(b) Receptor → Sensory neuron → Motor neuron → Effector

(c) Dendrites → Cyton → Axon endings → Synaptic cleft

Question 3

(i) What is a reflex action?

A sudden, automatic and involuntary response to a stimulus, without the conscious control of the brain (e.g., withdrawing the hand from a hot object).

(ii) Mention the exact location of the corpus callosum.

In the brain, between the two cerebral hemispheres, connecting them.

(iii) State the exact location of the dura mater.

It is the outermost of the three meninges, lying just beneath the skull / vertebral column, covering the brain and spinal cord.

(iv) (a) Explain the term synapse.

(b) Name the neurotransmitter that allows the transmission of impulses across the synapse.

(a) The junction between the axon endings of one neuron and the dendrites of the next neuron, separated by a tiny gap (synaptic cleft). (b) Acetylcholine.

(v) How are the cytons and axons of neurons arranged in the following?

(a) Cerebrum

(b) Spinal cord

(a) Cerebrum: cytons are on the outside (grey matter), axons inside (white matter). (b) Spinal cord: cytons are inside (grey matter), axons outside (white matter).

(vi) (a) Name the fluid present between the meninges in the spinal cord.

(b) What is its function?

(a) Cerebrospinal fluid. (b) Acts as a shock absorber protecting the brain and spinal cord; also nourishes them and removes wastes.

(vii) Mention the number of cranial nerves and spinal nerves in a human being.

12 pairs of cranial nerves; 31 pairs of spinal nerves.

(viii) Distinguish between the sympathetic system and the parasympathetic system on the basis of heartbeat.

Sympathetic: heartbeat increases. Parasympathetic: heartbeat decreases and returns to normal.

(ix) Mention any two functions of the cerebellum.

Coordinates voluntary muscle activity (smooth movement); maintains posture and equilibrium (balance of the body).

(x) Mention one function each for the cerebrum and the cerebellum.

Cerebrum: thinking, memory, intelligence, voluntary actions. Cerebellum: balance and coordination of muscles.

(xi) State the difference between a nephron and a neuron.

Nephron is the structural and functional unit of the kidney (filters blood, forms urine); neuron is the structural and functional unit of the nervous system (conducts nerve impulses).

Question 4

(i) Mohan is fond of playing basketball. His concentration is on shooting the ball into the opponent's basket, as given in the picture.

(a) Cerebrum
(b) Eye
(c) Cerebellum

(ii) Ayush was in the final round of a carrom match. He was focussing intently on the strokes of the opponent player.

(a) Cerebrum
(b) Cerebellum

(iii) Vineet's day begins with a cup of piping hot coffee. Caffeine is a stimulant present in coffee which increases the circulation of adrenaline in the body. Vineet feels refreshed, alert and focussed.

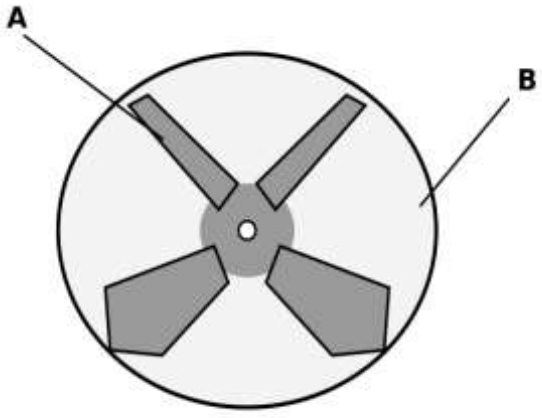
(a) Brain
(b) Meninges
(c) Sympathetic nervous system

(iv) Given below is the picture of an eagle. Eagles have binocular vision. What is the advantage of such a vision?

The visual fields of both eyes overlap, giving stereoscopic vision, so the eagle can judge depth and distance accurately to hunt its prey.

Question 5

(i) Copy the diagram given below.



Transverse section of a structure of the nervous system

(a) Spinal cord (transverse section)
(b) A = grey matter (inner, butterfly / H-shaped, containing cytons); B = white matter (outer, containing axons)

PART B — SENSE ORGANS: EYE AND EAR

Question 6

(i) Aruna went to a theatre to watch a movie on a bright sunny morning. As she came out of the theatre, she felt a dazzling effect and could not open her eyes. After a few minutes her vision became normal. This is due to:

(d) Adaptation of eyes [official]

(ii) Aditya is fond of roller skating. Identify the correct terms which help him to maintain his body balance:

(a) Cerebellum, Semicircular canals, Vestibule [official]

(iii) The structure that lies at the junction of the choroid and the iris and is itself a part of the choroid is called:

(a) Ciliary body

(iv) Owls are nocturnal animals. They are active at night and hunt small animals for food. Owls have large eyes and can see well at night. This is due to:

(c) Rods and rhodopsin

(v) The ear ossicle that transports sound vibrations to the inner ear:

(a) Stapes

(vi) Adjusting the focal length of the eye lens to view objects at different distances is done by:

(c) Ciliary muscles

(vii) Vitreous humour is present between:

(b) Lens and retina

(viii) While playing with his friends, Peter inserted a stick into his ear. He lost his hearing due to the rupture of:

(a) Ear drum

Question 7

(i) Name the following:

- **(a)** Astigmatism
- **(b)** Stapes
- **(c)** Pinna

(ii) Rajeev, a 10-year-old boy, went to an ophthalmologist to get his eyes tested. He noticed a poster in the clinic with questions related to the parts of the human eye. Help Rajeev answer the questions:

- **(a)** Tears
- **(b)** Cones
- **(c)** Optic nerve
- **(d)** Iris
- **(e)** Pupil

(iii) Arrange the terms in each group in the correct order:

- **(a)** Conjunctiva → Cornea → Lens → Fovea
- **(b)** Aqueous humour → Pupil → Vitreous humour → Retina
- **(c)** Pinna → Malleus → Stapes → Cochlea

(iv) Choose the odd one out and name the category to which the remaining three belong: Malleus, Incus, Cochlea, Stapes.

Odd: Cochlea. The others are ear ossicles.

(v) (a) myopia (b) elongated (c) thick / too convex (d) concave (e) dioptres

(vi) Tanya, a ten-year-old girl, had a severe earache. Her mother took her to an ENT doctor for a checkup. The doctor noticed that she had a throat infection which had spread to her ear. Answer the following questions:

(a) Eustachian tube

(b) Ossicles

(c) Organ of Corti (spiral organ)

(d) They prevent dust and other small foreign objects from reaching the ear drum.

(e) It carries nerve impulses from the inner ear to the brain for hearing and body balance.

Question 8

(i) What is the reason for hyperopia? How can it be corrected?

The eyeball is shortened from front to back, or the lens is too flat, so the image forms behind the retina. Corrected with a convex lens.

(ii) Tara's grandmother is 70 years old and has a passion for embroidery. She faces difficulty in threading the needle as the eye of the needle appears blurred. The ophthalmologist diagnosed it as an age-related disorder.

(a) Presbyopia

(b) Bifocal lenses (concave upper part for distant vision, convex lower part for near vision)

(c) Behind the retina (for near objects)

(iii) A teacher drew the diagram of the heart on the blackboard and told the students to copy it. Mahesh could not see the diagram clearly as it appeared blurred to him.

(a) Myopia (short-sightedness)

(b) In front of the retina

(c) Concave (diverging) lens

(iv) Mr. Sharma is a 76-year-old man. His vision was gradually becoming blurred. He consulted an eye doctor and it was diagnosed as cataract.

(a) The eye lens

(b) The lens becomes opaque / cloudy, so light cannot pass through it properly to form a clear image on the retina.

(v) Name the two sensory cells in the retina meant for light adaptation.

Rods and cones.

(vi) Which parts of the ear are responsible for: (a) static equilibrium? (b) dynamic equilibrium?

(a) Utriculus and sacculus (vestibule). (b) Semicircular canals.

(vii) Distinguish between the semicircular canals and the utriculus based on their function.

Semicircular canals sense rotational movement of the head (dynamic balance); utriculus senses the position of the head and posture when the body is still (static balance).

(viii) Rachna is an expert gymnast on the balance beam. She has been vigorously practising for the Olympic Games. Lately, she has been experiencing dizziness and losing her balance during the practice sessions.

(a) Semicircular canals

(b) Dynamic equilibrium

(ix) Which part of the ear equalizes air pressure on either side of the ear drum? Where is this structure located?

Eustachian tube; it is located in the middle ear (connects the middle ear to the throat).

(x) We should not insert sharp objects into the ear to remove ear wax. Give a suitable reason.

It may rupture the ear drum, leading to deafness.

(xi) Ahmed had a severe throat infection. After a few days he developed an earache too. What could be the reason for the pain in his ears? Explain.

The throat is connected to the middle ear by the Eustachian tube; the infection travelled through it to the middle ear and caused the pain.

(xii) Rajat Singh was working as a supervisor in a stone quarry where rock, sand and gravel are extracted by digging, drilling and blasting. As the years rolled by, Rajat started facing a loss in hearing. The high decibel sounds had damaged a part of his internal ear, though the tympanic membrane was intact.

(a) Labyrinth (bony and membranous labyrinth)

(b) Organ of Corti

(c) Noise pollution