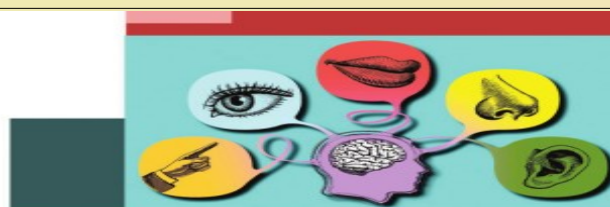


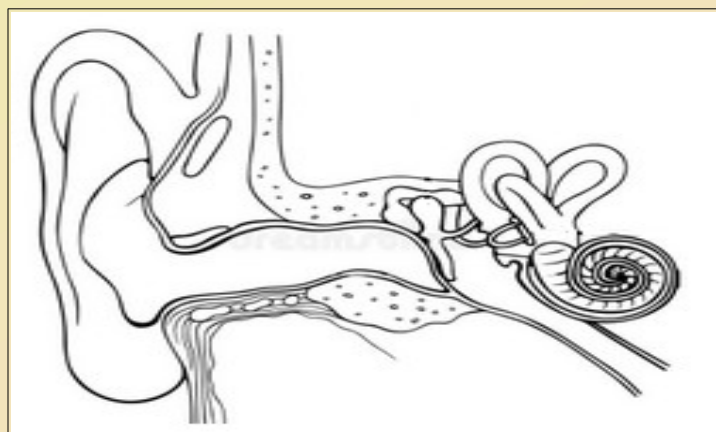


STANDARD X BIOLOGY(EM) CLASS: 12 DATE: 02/08/2021

2
Windows of
Knowledge



1) Redraw the diagram given below. Identify the parts and label it.



- The part where sound receptors are located.
- The part that maintains the pressure on both sides of the ear drum.
- The part that leads sound waves to auditory canal.
- The tube that connects middle ear to pharynx.
- The part that vibrates in resonance with sound waves.
- The part in which auditory receptors present.

2) Classify the given parts of ear.

Auditory canal, Ear ossicles, Eustachian tube, Cochlea, Vestibule, Tympanum, Semicircular canals, Pinna

EXTERNAL EAR	MIDDLE EAR	INTERNAL EAR

3) Find the given pair relationship and fill.

A) Malleus : Tympanum
Stapes :

B) Auditory nerve : Cerebrum
Vestibular Nerve :

C) Cochlea : Auditory Nerve
Vestibule :

D) Cochlea : Hearing
semicircular Canal :

E) Hearing : Cerebrum
Balancing :

4) Select the odd one and write the common features of others.

Stapes, Malleus, Cochlea, Incus

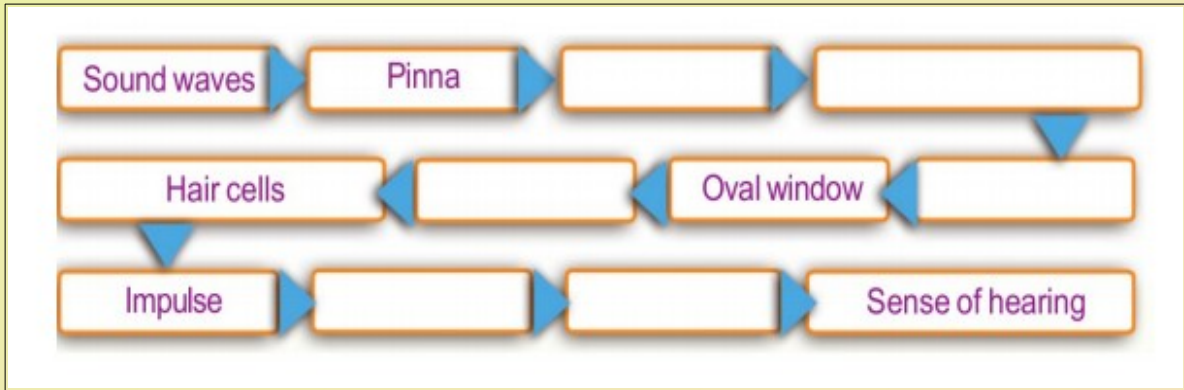
5) From the following, select the correct statements.

- a. Semicircular canal and cochlea help in body balancing.
- b. Eustachian tube connects middle ear and the pharynx.
- c. The space between the membranous and bony labyrinth of inner ear is filled with Perilymph.
- d. The organ of Corti is located within the vestibule.

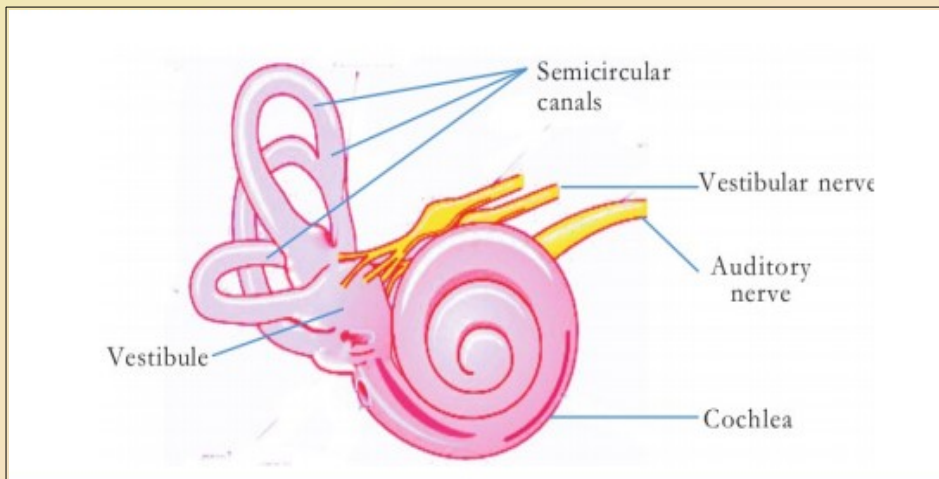
6) Rearrange column B in accordance with A.

A-Part	B-Function
Pinna	Amplify and transmit the vibrations of the tympanum to the internal ear
Auditory canal	Protects the tympanum by balancing the pressure on either side of the tympanum
Tympanum	Carries sound waves to the tympanum
Ear ossicles	A thin circular membrane. It vibrates in resonance with sound waves
Eustachian tube	Helps in the movements of fluid inside the cochlea
Oval window	Carries sound waves to the auditory canal
Round window	Spreads the vibrations of the ear ossicles to the inner ear

7) Complete the flowchart given below by including the parts of the ear that bring about the sense of hearing.



8) Observe the parts of internal ear and arrange the parts related with the given headings.



Parts related with hearing	Parts related with body balancing

9) Process in the balancing of body is given below. Arrange them in sequential order.

- A) Impulses are generated.
- B) The muscle activities are coordinated.
- C) Equilibrium of the body is maintained.
- D) Stimulate the receptors present in the vestibular apparatus.
- E) The impulses are transmitted to the cerebellum.
- F) Movement of the head bring about the movement of the endolymph present inside the vestibule and semicircular canal.



TO WATCH THE VICTER'S CHANNEL CLASS NO:12 CLICK ON THE IMAGE.

