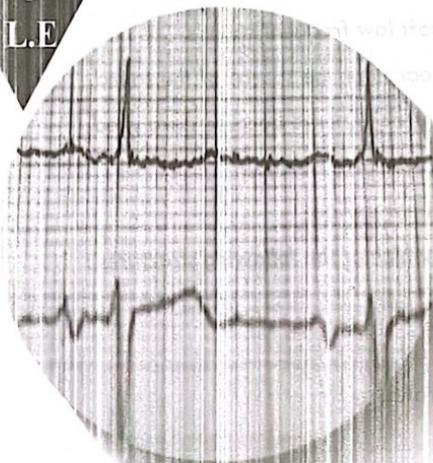


MCQ Physio

CNS

3
L.E



Lecture (15)



DR.M M

Written Q

1. Def hearing threshold and its value ?
2. Enumerate functions of external auditory meatus ?
3. Enumerate functions of ear drum (tympanic membrane)?
4. Mention in brief function of ossicular system ?
5. Mention function of round window ?
6. Enumerate function Eustachian tube?
7. Attenuation reflex , def , mechanism , significance ?

Formative MCQ

<p>1. Attenuation reflex:</p> <ul style="list-style-type: none">a) Is activated by soft low frequent soundsb) Affects only the ear near the source of the sound.c) Is still intact when facial nerve become paralyzedd) Has incomplete protective functione) Has very short latent period	D
<p>2. Middle ear contain which of the following structures :</p> <ul style="list-style-type: none">a) Modiolusb) Labyrinthc) Vestibular apparatusd) Ossiclese) Perilymph	D
<p>3. Which part of auditory system is most sensitive to damage from sudden loud sounds :</p> <ul style="list-style-type: none">a) Hair in cochleab) Auditory nervec) Ear drum	A

<p>4. Middle ear ms :</p> <ul style="list-style-type: none"> a) Contract in response to high frequency sounds b) Reduce the sensitivity of person to his own sound c) Help free inward and outward movement of stapes into oval window 	B
<p>5. About middle ear :</p> <ul style="list-style-type: none"> a) Connected to atmosphere b) Responsible for amplification of sound c) All its ms are supplied by trigeminal nerve 	B
<p>6. Round window in the middle ear:</p> <ul style="list-style-type: none"> a) Closed by the tympanic membrane. b) Help to make rarefaction phase in cochlear fluid when the oval window has condensation phase. c) Connect the middle ear with the nasopharynx. d) Is responsible for Otitic barotrauma during rapid descent in aeroplane. e) Help transmission of sound vibrations from tympanic membrane to the fluid in scala vestibuli in the cochlea. 	B
<p>7. The pitch of the sound is determined by its:</p> <ul style="list-style-type: none"> a) Frequency b) Velocity c) Amplitude d) Wave form e) Wave length. 	A
<p>8. The primary function of the bones of the middle ear is to:</p> <ul style="list-style-type: none"> a) Amplify the sound stimulus. b) Filter high-frequency sounds from the sound stimulus. c) Enable the direction of a sound stimulus to be detected. d) Enhance the ability to distinguish different sound frequencies. e) Protect the ear from damage. 	A

9. If the threshold for hearing increases 1000 times, the hearing loss is:

- a) 20 decibels
- b) 30 decibels
- c) 40 decibels
- d) 50 decibels
- e) 60 decibels.

B

10. Functions of external auditory canal include:

- a) Impedance matching.
- b) Magnification of sound waves 22 times.
- c) Aeration of middle ear.
- d) Equalize the pressure on both sides of the tympanic membrane.
- e) Maintain the proper humidity and temp for ear drum functions.

E

11. About the middle ear:

- a) Responsible for amplification of sound waves.
- b) Connected to atmosphere.
- c) Bony ossicles act as vibrators.
- d) All its muscles are supplied by trigeminal cranial nerve.
- e) The oval window is closed by 2ry tympanic membrane.

A

12. The middle ear:

- a) Is responsible for transmission of sound waves from nasopharynx to cochlea without great loss in its energy.
- b) Is a fluid filled cavity in temporal bone.
- c) Is bounded medially by tympanic membrane.
- d) Contains tensor tympani muscle which is attached to the long process of incus.
- e) Is connected with nasopharynx via Eustachian tube.

E

<p>13. Middle ear muscles:</p> <ul style="list-style-type: none"> a) Are supplied by facial nerve only. b) Contract in response to high frequent sounds. c) Help free inward and outward movements of stapes into oval window. d) Protect the cochlear structure against gunshot sounds. e) Reduce the sensitivity of the person to his own speech. 	E
<p>14. Round window in the middle ear:</p> <ul style="list-style-type: none"> a) Closed by the tympanic membrane b) Connect the middle ear with the nasopharynx c) Is responsible for Otitic barotrauma during rapid descent in aeroplane d) Help to make rarefaction phase in cochlear fluid when the oval window has condensation phase e) Help transmission of sound vibrations from tympanic membrane to the fluid in scala vestibuli in the cochlea. 	D
<p>15. Normally, the hearing threshold of human ear is:</p> <ul style="list-style-type: none"> a) 0 dB. b) 40 dB. c) 60 dB. d) 80 dB. e) 80 dB. 	A
<p>16. The best audible frequency range for man is:</p> <ul style="list-style-type: none"> a) 150 - 500 Hz b) 1000 - 3000 Hz c) 3000 - 5000 Hz d) 50 - 100 Hz e) 10000-20000 Hz. 	B

<p>17. The loudness of the sound is determined mainly by its:</p> <ul style="list-style-type: none"> a) Frequency b) Velocity c) Amplitude d) Wave form. e) Wave length. 	<p>C</p>
<p>18. Function of tympanic membrane is regulated by:</p> <ul style="list-style-type: none"> a) Tensor tympani. b) Tensor palati. c) Stapedius. d) Annular ring of tympanic membrane. e) Round window. 	<p>A</p>
<p>19. Which of the following are incorrectly paired?</p> <ul style="list-style-type: none"> a) Tympanic membrane: malleus b) Helicotrema: apex of cochlea c) Foot plate of stapes: oval window d) Tympanic membrane: cochlea e) Stapedius muscle: tensor tympani muscle 	<p>D</p>

Other MCQ

<p>1. The Eustachian tubes:</p> <ul style="list-style-type: none">a) are always open to equalize pressure on both sides of the tympanic membrane.b) connect the middle ear with the esophagus.c) open during sleep.d) connects the middle ear with the trachea.e) open during yawning.	E
<p>2. Regarding the conduction of sound waves to the inner ear:</p> <ul style="list-style-type: none">a) bone conduction is the most efficient route.b) air conduction is the most efficient route.c) ossicular conduction is the most efficient route.d) sound is magnified only 10 times during bone conduction.e) sound is magnified only 10 times during ossicular conduction.	C
<p>3. Concerning hearing which of the following is correct:</p> <ul style="list-style-type: none">a) vibration of the basilar membrane causes the movement of the three middle ear bones.b) the oval window separates the ear (auditory) canal from the cochlea.c) sound waves are transmitted from the oval window to the scala vestibuli.d) tectorial membrane contains (supports) the organ of Corti.e) frequency of human sound ranges from 20 – 20,000 Hz.	C
<p>4. In the middle ear, all the following is true except:</p> <ul style="list-style-type: none">a) There are 3 bony ossicles, 2 skeletal muscles, 2 nerves and is separated from the internal ear by 2 foramina.b) Eustachian tube equalizes pressure at both sides of tympanic membrane.c) Handle of malleus is attached to the back of the tympanic membrane.d) The footplate of the stapes lies in relation to the round window.e) Tensor tympani muscle decreases vibrations of tympanic membrane.	D

<p>5. About the intensity of sound, all the following is true except:</p> <ul style="list-style-type: none">a) It is measured in decibels.b) It is determined by the amplitude of the sound waves.c) It is perceived as loudness of the sound.d) It is interpreted by the auditory cortex according to the frequency of impulses in the auditory nerve fibers.e) It is not affected by the frequency of sound waves	<p>E</p>
<p>6. Attenuation tympani reflex caused by loud sounds leads to:</p> <ul style="list-style-type: none">a) Contraction of both the stapedius and tensor tympani muscles.b) Relaxation of the above 2 muscles.c) Contraction of the stapedius and relaxation of the tensor tympanid) Relaxation of the stapedius and Contraction of the tensor tympanie) None of the above	<p>A</p>
<p>7. Which of the following is the middle ear ossicle that is attached to the tympanic membrane?</p> <ul style="list-style-type: none">a) Columellab) Incusc) Malleusd) Modioluse) Stapes	<p>C</p>

8. Which of the following regarding the attenuation reflex is correct?

- a) Can increase intensity of low frequency sound transmission by 30 to 40 decibels
- b) Increases the rigidity of the ossicular system, thereby reducing conduction of low frequency sounds
- c) Masks high frequency sounds in a loud environment so lower frequency sounds are more easily heard
- d) Occurs following a latent period of 4 to 8 seconds after the loud sound
- e) Protects the cochlea from the damaging vibrations of relatively quiet but high frequency sounds

B

9. The function of the round window can best be described by which of the following?

- a) Provides the correction point for the stapes
- b) Serves to damp out low frequency sounds such as your own voice
- c) Transmits the frequency information into the cochlea from the tympanic membrane
- d) Serves as the pressure relief valve for the cochlea
- e) Transmits amplitude information into the cochlea from the tympanic Membrane

D

10. Auditory information is relayed through which thalamic nucleus?

- a) Dorsomedial nucleus
- b) Lateral geniculate nucleus
- c) Medial geniculate nucleus
- d) Ventral posterolateral nucleus
- e) Ventral posteromedial nucleus

C