

INSTRUCTIONS
1-All objective questions are to be attempted on the paper and returned to the invigilator within 20 mins.
2-Any cutting and overwriting in objective part will not be accepted.

Q1. The region of brain involved with motivation, emotion & memory is:

- A. Prefrontal association area
- B. Parietal association area
- C. Temporal association area
- D. Limbic association area
- E. Brain stem

Q2. Sense of satiety or decreased hunger results by stimulation of

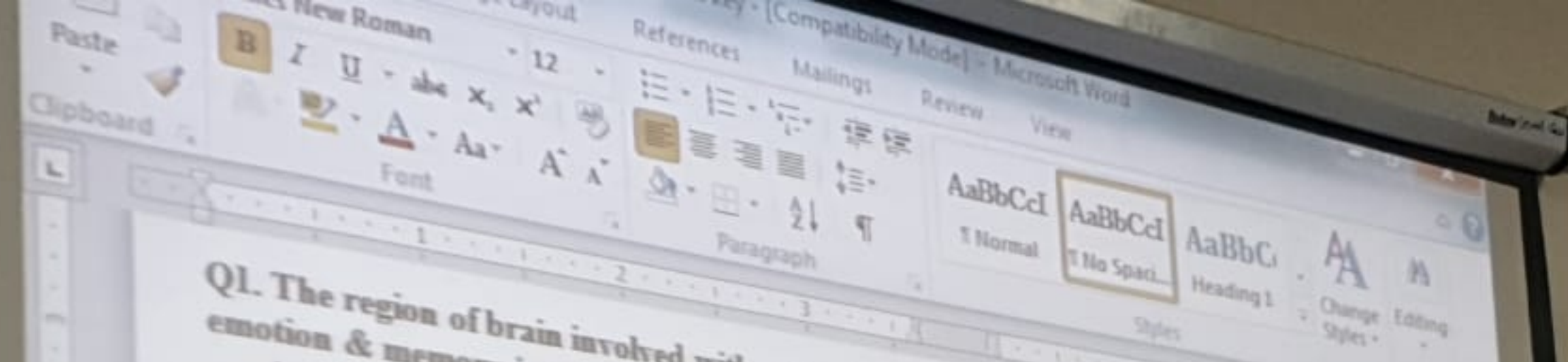
- A. Paraventricular nuclei
- B. Ventromedial nucleus
- C. Supraoptic nuclei
- D. Posterior Hypothalamus

Q6. How short term memory is stored

- A. Pre synaptic facilitation
- B. Reverberating circuits
- C. Both A & B
- D. Pre synaptic inhibition
- E. Pre synaptic inhibition

Q7. Which of the following activity is example Skill memory

- A. When you learn to ride bicycle
- B. When you drive a car
- C. When you remember the time of an appointment
- D. When you recall an event



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Q8. what is true about declarative memory

- A. Is short term memory
- B. Does not involve conscious recollection

excellent language comprehension through hearing. Most probable problem lies in which of the following area:

- A. Wernick's area
- B. Broca's area
- C. Angular gyrus area
- D. Secondary somatic area
- E. Primary somatic area

Q4. Global Aphasia is caused by lesion of:

- A. Cerebellum and basal ganglia
- B. cerebellum and thalamus
- C. cerebral cortex and hypothalamus
- D. Wide spread damage of Wernick's area including angular gyrus
- E. Pons and medulla

Q5. Aslam is suffering from Myasthenia Gravis he has disorder of speech which is due to paralysis of muscle required for speech it is called

- C. Cerebral cortex is mainly involved
- D. Recalling an event years ago
- E. Is procedural memory

Q9. Retrograde amnesia indicates :-

- A. inability to consolidate memories
- B. Inability to recall past memories
- C. Failure of working memory
- D. Presence of lesions in the hypothalamus
- E. Lesion of frontal cortex

Q10. The hypothalamic nucleus that acts as a biological clock of the body is:

- A. Supraoptic nucleus
- B. Preoptic nucleus
- C. Arcuate nucleus
- D. Suprachiasmatic nucleus
- E. Posterior nucleus

Q11. During REM sleep (Desynchronized sleep)

- D. Limbic association area
- E. Brain stem

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characteristics:

- A. It produces 20 to 30 waves per second
- B. It disappears when patients eye open
- C. It is replaced by slower, larger waves during REM sleep
- D. It represents activity that is most prominent in frontal region of brain
- E. It is associated with deep sleep

Q17. One person who is at high altitude & is overbreathing, got epileptic attack, what initiated the epileptic fit

- A. Acidosis
- B. Anoxia
- C. Hypoxia
- D. Hypoglycemia
- E. Alkalosis

(parasympatnenc) is stimulated the

- A. Ciliary muscle relaxes
- B. Suspensory ligaments becomes taught
- C. Ciliary muscle contract & near objects are viewed.
- D. Pupillary constriction
- E. Both C & D

Q23. In rhodopsin cycle which is the active substance which trigger first step of cascade o stimulation of Rods:

- A. Dissociation of scotopsin and meta rhodo
- B. Decomposition of scotopsin
- C. Transformation of 11-cis retinal to all-trans retinal
- D. Transformation of meta rhodopsin to lum rhodopsin
- E. Transformation of bathorhodopsin to lumirhodopsin

E. Cingulate gyrus

Q15. β - waves of the EEG :-

- A. Are observed during relaxed wakeful state
- B. Are faster than α - waves but slower than theta waves
- C. Disappear when the person becomes alert
- D. Are observed during alert wakeful state
- E. Are observed in deep sleep

Q16. A 20 years old adolescent girl with epilepsy has an EEG recording done. The alpha rhythm appearing on EEG has which of the following characteristics?

- A. It produces 20 to 30 waves per second
- B. It disappears when patients eye open
- C. It is replaced by slower, larger waves during REM sleep
- D. It represents activity that is most prominent in frontal region of brain

E. Jacksonian epilepsy

Q21. Javaria got epileptic fit which lasted for 4 minute, during that urination Occurred & she also had bitten her tongue. w type of epileptic fit she is having??

- A. Petit Mal
- B. Grand Mal
- C. Focal
- D. Jacksonian
- E. Psychomotor

Q22. When 3rd cranial Nerve is stimulated (parasympathetic) is stimulated the

- A. Ciliary muscle relaxes
- B. Suspensory ligaments becomes taught
- C. Ciliary muscle contract & near objects are viewed.
- D. Pupillary constriction
- E. Both C & D

Q13. The major reward centre is located in which part of hypothalamus:
A. Lateral and ventromedial nuclei
B. periventricular area
C. Paraventricular nuclei
D. Perifornical nuclei
E. Arcuate nuclei

Q14. The Kluver-Bucy syndrome is characterized by decreased emotional expression, loss of fear, excessive oral behavior and increased sexual activity. These symptoms are produced by bilateral lesion of the:
A. Hippocampus
B. Amygdala
C. Ventral hypothalamus
D. Corpus callosum
E. Cingulate gyrus

Q15. β - waves of the EEG :-

Q19. A 5-year-old boy brought to hospital with complaints of 3-30 seconds of unconsciousness during which he stares and has twitch like contractions of head and blinking of eyes. Afterwards he resumes activities normally. The most probable diagnosis is:
A. Complex partial seizure
B. Absence epilepsy
C. Simple partial seizure
D. Tonic-clonic seizure
E. Parkinson's Disease

Q20. Dome & spike type of pattern is seen in
A. Grand mal epilepsy
B. Petitmal epilepsy
C. Focal epilepsy
D. Psychomotor epilepsy
E. Jacksonian epilepsy

Q21. Javaria got epileptic fit which lasted for

- B. cerebellum and thalamus
- C. cerebral cortex and hypothalamus
- D. Wide spread damage of Wernick's area Including angular gyrus
- E. Pons and medulla

Q5. Aslam is suffering from Myasthenia Gravis he has disorder of speech which is due to paralysis of muscle required for speech it is called

- A. Sensory aphasia
- B. Motor aphasia
- C. Global aphasia
- D. Dysarthria
- E. Dyslexia

Q10. The hypothalamic nucleus that acts as a biological clock of the body is:

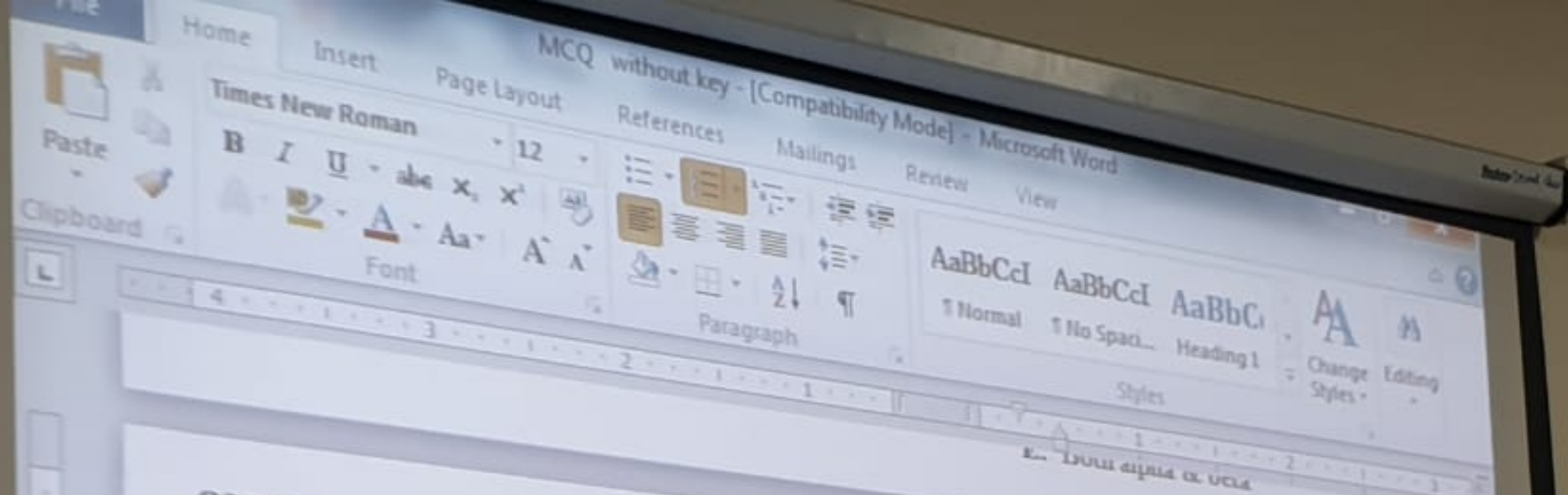
- A. Supraoptic nucleus
- B. Preoptic nucleus
- C. Arcuate nucleus
- D. Suprachiasmatic nucleus
- E. Posterior nucleus

Q11. During REM sleep (Desynchronized sleep) which type of waves are seen?

- A. Alpha
- B. Beta
- C. Delta
- D. Theta
- E. Both alpha & beta

Q12. Stimulation of which area of brain produce

Q18. Possible exaggerated function of part of



Q12. Stimulation of which area of brain produce sleep?

- A. Raphe nuclei in lower half of pons & medulla
- B. amygdala
- C. Hippocampus
- D. Limbic cortex
- E. Primary sensory area

Q13. The major reward centre is located in which part of hypothalamus:

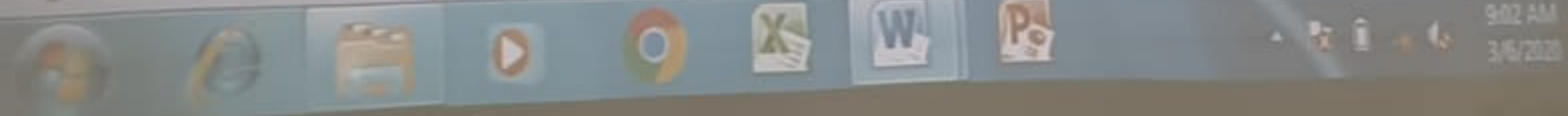
- A. Lateral and ventromedial nuclei
- B. periventricular area
- C. Paraventricular nuclei
- D. Perifornical nuclei
- E. Arcuate nuclei

Q18. Possible exaggerated function of part of dopamine system will result in:

- A. Mania
- B. Depression
- C. Alzheimer's Disease
- D. Schizophrenia
- E. Parkinson's Disease

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Q24. An increase in refractive power of lens is contributed by contraction of the:

- A. Iris
- B. Ciliary muscle
- C. Suspensory ligament
- D. Extraocular muscles
- E. Pupil

Q25. A 40 years house wife consulted an ophthalmologist with the complain that she has great difficulty in reading book, or doing her near work like stitching a button on her shirt. what is true about this patient:

- A. Her eye ball is elongated
- B. She is having near sightedness
- C. Her lens has increased refractive power
- D. A near source is focused behind the retina
- E. She should be given concave lens to correct

Q30. Minimum how much increase in intraocular pressure can cause loss of vision when maintain for long period of time:

- A. 5 to 10 mm Hg
- B. 10 to 15 mm Hg
- C. 15 to 20 mm Hg
- D. 20 to 25 mm Hg
- E. 25 to 30 mm Hg

Q31. Concave spherical lenses are used for correction of:

- A. Hyperopia
- B. Myopia
- C. Emmetropia
- D. Astigmatism
- E. Cataract

Q32. When rhodopsin decomposes after expos

True about this patient:

- A. Her eye ball is elongated
- B. She is having near sightedness
- C. Her lens has increased refractive power
- D. A near source is focused behind the retina
- E. She should be given concave lens to correct the error

Q26. The stimulation of which type of sensory receptor cause the receptor cell membrane to hyperpolarize:

- A. Meissners Corpuscle
- B. Rods
- C. Free nerve ending
- D. Touch receptors
- E. Nocireceptors

Q27. The function of Hipocampus regarding the storage of memory is

- A. It store only the Pleasant memory

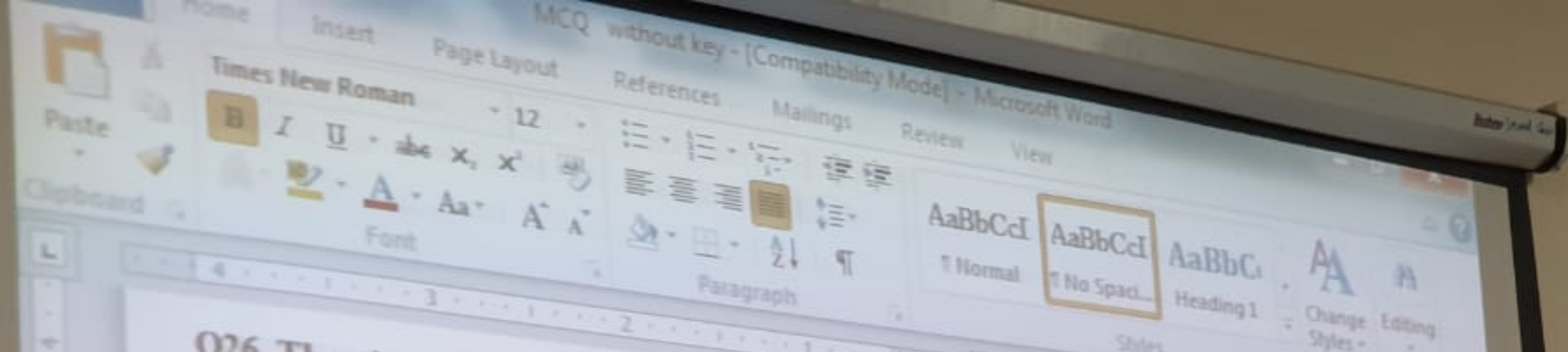
- D. Myopia
- C. Emmetropia
- D. Astigmatism
- E. Cataract

Q32. When rhodopsin decomposes after exposure to light, it decreases the rod membrane conductance for which ion in the outer segment

- A. Na
- B. K
- C. Ca
- D. Mg
- E. Cl

Q33. A 75-years-old male, presented to eye with complaints of loss of accommodation. On examination his power of accommodation found to be decreased to 0 diopters. What would be the most probable diagnosis?

- A. Myopia



Q26. The stimulation of which type of sensory receptor cause the receptor cell membrane to hyperpolarize:

- A. Meissners Corpuscle
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- C. Free nerve ending
- D. Touch receptors
- E. Nocireceptors

Q27. The function of Hipocampus regarding the storage of memory is

- A. It store only the Pleasant memory
- B. It stores only skill memory
- C. It stores the verbal & symbolic (Declarative memory)
- D. Both pleasant & unpleasant memory which form the background of motivation
- E. Both c & D

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- A. Myopia
- B. Cataract
- C. Astigmatism
- D. Hyperopia
- E. Presbyopia

Q34. The Amina is diagnosed suffering syphilis On examination Accomodation refl



- memory)
- D. Both pleasant & unpleasant memory which form the background of motivation
- E. Both c & D

- Q28. The blind spot has
- A. Rods only
 - B. Cones only
 - C. Both rods & cones
 - D. No visual receptors at all
 - E. Greatest acuity of vision

- Q29. With regard to internal structure of retina
- A. The rods & Cones synapse with bipolar cells
 - B. The Amacrine cells synapse with ganglion cells
 - C. The bipolar cells synapse with horizontal cells
 - D. The Axons of bipolar cells emerge as optic nerve
 - E. The horizontal cells synapse with amacrine

- D. hyperopia
- E. Presbyopia

- Q34. The Amina is diagnosed suffering syphilis. On examination Accommodation reflex present but Light reflex is absent. Which brain is damaged:
- A. Edinger westphal nucleus
 - B. Optic Nerve
 - C. Optic tract
 - D. Optic chiasma
 - E. Pre- tectal nuclei

- Q35. Destruction of right Optic tract will lead
- A. Binasal Hemianopia
 - B. Heteronymous Hemianopia
 - C. Left Homononymous Hemianopia
 - D. Bitemporal hemianopia
 - E. Right nasal hemianopia

Q36. The bitter taste is mediated by which Mechanism:

- A. By Opening Na^+ channels
- B. By opening Cl^- channel
- C. By opening H^+ channels
- D. Hyperpolarizing taste cells
- E. Activating second messenger system

Q37. Which of the following primary taste initiates receptor potential by blocking k^+ channel?

- A. Salt
- B. Sour
- C. Sweet
- D. Bitter
- E. Ummami

Q43. Fibers of auditory pathway relay at which part of thalamus?

- A. Lateral geniculate body
- B. Ventro-postero-medial nuclei
- C. Ventro-postero-lateral nuclei
- D. Medial geniculate body
- E. Midline nuclei

Q44. Which of the following is the major cause of conductive deafness?

- A. Aging
- B. Ototoxicity
- C. Damage of the hair cells
- D. Otosclerosis
- E. Loud sounds

Q45. The phenomenon that provide matching between the sound waves in air and the sound

receptor potential by blocking K^+ channel:

- A. Salt
- B. Sour
- C. Sweet
- D. Bitter
- E. Ummami

Q38. The sense of olfaction is stimulated when odorant substance is

- A. Lipid soluble
- B. Non-volatile
- C. Pungent only
- D. If present in high concentration
- E. Water insoluble

Q39. The olfactory receptor potential is generated by

- A. Na^{++} influx
- B. Ca^{++} influx

- A. Aging
- B. Ototoxicity
- C. Damage of the hair cells
- D. Otosclerosis
- E. Loud sounds

Q45. The phenomenon that provide matching between the sound waves in air and the sound vibrations in the fluid of the cochlea is known

- A. Place principle
- B. Attenuation reflex
- C. Impedance matching
- D. Resonance
- E. Endocochlear potential

Q46. What is true regarding Endocochlear potential?

- A. It is potential that exists all the time between endolymph & perilymph.
- B. It is generated by continuous secretion of K^+ ions into scala media by stria vascularis
- C. It is potential that exists between perilymph

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Q39. The olfactory receptor potential is generated by

- A. Na^{++} influx
- B. Ca^{++} influx
- C. Mg^{++} influx
- D. Cl^{-} influx
- E. K^{++} influx

Q40. Activation of sense of olfaction involves the following:

- A. Leptin receptor
- B. Adenyl cyclase - cAMP messenger system
- C. DAG second messenger system
- D. Activation of phospholipase C

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- B. It is generated by continuous secretion of K^{+} ions into scala media by stria vascularis.
- C. It is potential that exists between perilymph present in scala vestibule & scala tympani.
- D. It is potential of CSF.
- E. Only A & B are true.

Q47. Angular acceleration & deceleration of the head is detected by the

- A. Utricule
- B. Sacculle
- C. Semicircular canal
- D. Cochlea
- E. Organ of Corti

Q40. Activation of sense of olfaction involves the following:

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- C. DAG second messenger system
- D. Activation of phospholipase C
- E. Calcium - Calmodulin second messenger

Q41. A newer olfactory pathway transmits the informations to orbitofrontal cortex by passing through which thalamic nucleus?

- A. Lateral geniculate
- B. Dorsomedial
- C. Medial geniculate
- D. Ventral postrolateral
- E. Ventral postromedial

Q42. Which of the following electrolyte is abundant in Endothorax?

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- A. Utricle
- B. Saccule
- C. Semicircular canal
- D. Cochlea
- E. Organ of corti

Q48. Linear movement of the head & its position relative to gravity is detected by

- A. Otolith Organ
- B. Anterior semicircular canal
- C. Posterior semicircular canal
- D. Cochlea
- E. Organ of corti

Q49. When you ride in an elevator or you jump up down, the verticle acceleration or decleration is detected by

- A. Utricle
- B. Saccule
- C. Horiontal semicircular canal
- D. Anterior semicircular canal

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Q42. Which of the following electrolyte is abundant in Endolymph:

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- B. Calcium
- C. Potassium
- D. Magnesium
- E. Chlorine

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- B. Anterior semicircular canal
- C. Posterior semicircular canal
- D. Cochlea
- E. Organ of corti

Q49. When you ride in an elevator or you jump up down, the verticle acceleration or deceleration is detected by

- A. Utricle
- B. Saccule
- C. Horizontal semicircular canal
- D. Anterior semicircular canal
- E. Posterior semicircular canal

Q50. The hair cells of Vestibular apparatus are depolarized when:

- A. The stereocillia are bent away from kinocillium
- B. The stereocillia are bent towards the kinocillium
- C. The Kinocillium is bent towards stereocillia
- D. The kinocillium is bent away from the stereocil
- E. Stereocillia do not bend at all

- 1 ~~A~~ - D
- 2 B
- 3 C
- 4 D
- 5 D
- 6 C
- 7 B
- 8 D
- 9 B
- 10 P
- 11 B
- 12 A
- 13 A
- 14 B
- 15 D
- 16 B

- 17 E
- 18 P
- 19 B
- 20 B
- 21 B
- 22 E
- 23 E
- 24 B
- 25 D
- 26 B
- 27 E
- 28 D
- 29 A
- 30 E
- 31 B
- 32 A

- 33 E
- 34 E
- 35 C
- 36 E
- 37 A
- 38 A
- 39 A
- 40 B
- 41 B
- 42 C
- 43 ~~D~~
- 44 D
- 45 C
- 46 E
- 47 C
- 48 A
- 49 B
- 50 B
- ~~51~~