

## Medical Bheap Mcqs

**2<sup>nd</sup> Proff 2020 KMU solved Mcqs****Block D (Neurosciences)****Medical Bheap Mcqs****Neuroanatomy****No. of mcqs= 21**

1. Regarding the cerebellum, the superior cerebellar peduncle is connected to?
  - A. Thalamus
  - B. Hypothalamus
  - C. Midbrain
  - D. Pons
  - E. Medulla oblongata
2. The middle cerebellar peduncle is connected to?
  - A. Thalamus
  - B. Midbrain
  - C. Pons
  - D. Medulla Oblangata
  - E. Spinal cord
3. Regarding cerebellum, the inferior cerebellar peduncles is connected to?
  - A. Thalamus
  - B. Hypothalamus
  - C. Midbrain
  - D. Pons
  - E. Medulla oblongata
4. Cauda equina literally means?
  - A. Foot of the horse
  - B. Tail of a horse
  - C. Boat shaped structure
  - D. Neck of a horse
  - E. An oval structure
5. Which of the following nerves take origin from the pons?
  - A. Trigeminal nerve
  - B. Hypoglossal nerve
  - C. Vagus nerve
  - D. Trochlear nerve
  - E. Oculomotor nerve

**Answers and Hints:**

1. **C**  
Snell neuroanatomy  
Page: 9 Ch:1
2. **C**
3. **E**
4. **B**
5. **A**  
Hint:  
**2,2,4,4.....mnemonic**  
2---cerebrum  
(olfactory,optic)  
2---midbrain (III,IV)  
4---pons (V,VI,VII,VIII)  
4---medulla(IX,X,XI,XII)

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6. Regarding the nerves of spinal cord, the spinal cord is composed of?
- A. 20 pairs of spinal nerves
  - B. 24 pairs of spinal nerves
  - C. 31pairs of spinal nerves
  - D. 33 pairs of spinal nerves
  - E. 38 pairs of spinal nerves
7. The groove on the ventral surface of the pons is formed by the
- A. Basilar artery
  - B. Internal carotid artery
  - C. Vertebral arteries
  - D. Superior cerebellar arteries
  - E. Posterior cerebellar arteries
8. The CSF is produced by the?
- A. Arachnoid granulations
  - B. Sagittal sinus
  - C. Dura mater
  - D. Choroid plexuses
  - E. Transverse sinus
9. Regarding the cranial nerves, the foramen rotundum transmits the?
- A. Olfactory nerve
  - B. Optic nerve
  - C. Oculomotor nerve
  - D. Maxillary nerve
  - E. Mandibular nerve
10. Which of the following structures passes via the optic canal?
- A. Oculomotor nerve
  - B. Trochlear nerve
  - C. Ophthalmic artery
  - D. Frontal nerve
  - E. Abducent nerve
11. Cribriform plate of ethmoid transmits the fibers of?
- A. Optic nerve
  - B. Olfactory nerve
  - C. Oculomotor nerve
  - D. Trochlear nerve
  - E. Trigeminal nerve
6. C
7. A
8. D
9. D
10. C
11. B

## Medical Bheap Mcqs

12. Emboliform nucleus is related to?

- A. Cerebral hemisphere
- B. Medulla oblongata
- C. Spinal cord
- D. Cerebellum
- E. Cerebral cortex

13. The lateral most nucleus in the cerebellum is the?

- A. Fastigial nucleus
- B. Globose nucleus
- C. Emboliform nucleus
- D. Red nucleus
- E. Dentate nucleus

14. Central sulcus is related to the?

- A. Cerebral hemispheres
- B. Thalamus
- C. Hypothalamus
- D. Pons
- E. Midbrain

15. The jugular foramen transmits which of the following cranial nerve?

- A. Oculomotor nerve
- B. Facial nerve
- C. Hypoglossal nerve
- D. Glossopharyngeal nerve
- E. Olfactory nerve

16. Which of the following Foramen transmits the vagus nerve?

- A. Foramen lacerum
- B. Internal acoustic meatus
- C. Jugular foramen
- D. Inferior orbital fissure
- E. Superior orbital fissure

17. The dura mater of spinal cord terminates at the level of the?

- A. S2 vertebra
- B. S1 vertebra
- C. L3 vertebra
- D. L2 vertebra
- E. L1 vertebra

12. D

Hint:

Lateral to medial sequence of cerebellar nuclei:

**"Don 't Eat Greasy Food"**

Dentate

Embolifom

Globose

Fastigeal

13. E

Hint:

Lateral Most-Dentate

Largest- Dentate

Smallest-Globose

Most Medial-Festigious

14. A

15. D

16. C

17. A

18. The middle cerebral artery is the direct continuation of?

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- A. Anterior cerebral artery
- B. Posterior cerebral artery
- C. Internal carotid artery
- D. Basilar artery
- E. Vertebral artery

19. Midbrain cavity containing the CSF is the?

19. C

- A. Foramen of Monro
- B. Central canal
- C. Aqueduct of sylvius
- D. Foramina of Luschka
- E. Foramen of Megendie

20. Regarding the primary motor area, it is related to?

20. E

- A. Postcentral gyrus
- B. Inferior temporal gyrus
- C. Superior frontal gyrus
- D. Superior temporal gyrus
- E. Precentral gyrus

21. Primary sensory area is mainly located in the?

21. E

- A. Occipital lobe
- B. Parietal lobe
- C. Frontal lobe
- D. Precentral gyrus
- E. Post central gyrus

### Head and Neck No. of mcqs=17

22. The crista galli represents the upward projection of?

22. C

- A. Sphenoid bone
- B. Occipital bone
- C. Ethmoid Bone
- D. Frontal bone
- E. Parietal bones

23. Which of the following nerve supplies structures in the chest and abdomen?

23. D

- A. Trigeminal nerve
- B. Vestibulocochlear nerve
- C. Facial nerve
- D. Vagus nerve
- E. Hypoglossal nerve

18. C

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24. Which of the following bones are in pair?

- A. Temporal
- B. Sphenoid
- C. Ethmoid
- D. Frontal
- E. Occipital

24. A

25. The foramen spinosum lies in the?

- A. Frontal bone
- B. Sphenoid bone
- C. Parietal bones
- D. Temporal bones
- E. Occipital bone

25. B

26. The muscles of the iris are supplied by the?

- A. Autonomic nervous system
- B. Accessaory nerve
- C. Vestibulocochlear nerve
- D. Trochleal nerve
- E. Facial nerve

26. A

27. Hypoglossal canal lies in which of the following bones?

- A. Frontal bone
- B. Sphenoid bone
- C. Temporal bone
- D. Occipital bone
- E. Parietal bone

27. D

28. Taste fibers from posterior third of tongue are carried by the?

- A. Vestibulocochlear nerve
- B. Trigeminal nerve
- C. Glossopharyngeal nerve
- D. Trochlear nerve
- E. Facial nerve

28. C

Sensory innervation of tongue:

**Anterior two thirds (oral);**

**General sensation—**

mandibular nerve via lingual nerve

**Taste sensation---**

Facial nerve (VII) via chorda tymphani

**Posterior one third**

**(pharyngeal);**

**Both general and taste sensations---**

Glossopharyngeal nerve (IX) (Gray's P#1089)

29. C

29. The fibers of general sensation from the posterior third of the tongue, are carried by the?

- A. Trigeminal nerve
- B. Hypoglossal nerve
- C. Glossopharyngeal nerve
- D. Optic nerve
- E. Olfactory nerve

30. Tympanic membrane is innervated by auriculotemporal nerve and.....?

- A. Facial nerve
- B. Auricular branch of vagus nerve
- C. Tympanic nerve

30. B

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- D. Great auricular nerve
- E. Mandibular nerve

31. Regarding the muscles of the eye the lateral rectus is innervated by?

- A. Trigeminal nerve
- B. Facial nerve
- C. Oculomotor nerve
- D. Trochlear nerve
- E. Abducent nerve

31. E  
32. A

**Mnemonic: LR6**

Lateral rectus---Abducent (VI) nerve

**Mnemonic: SO4**

Superior Oblique---Trochlear (IV) nerve

All other extrinsic muscles of the eye are supplied by oculomotor (III) nerve

32. The superior oblique muscle of the eye is innervated by?

- A. Trochlear nerve
- B. Oculomotor nerve
- C. Trigeminal nerve
- D. Facial nerve
- E. Abducent nerve

33. All the venous sinuses of the dura mater ultimately drains into?

- A. Great cerebral vein
- B. Internal jugular vein
- C. External jugular vein
- D. Sigmoid sinus
- E. Straight sinus

33. B

34. The internal acoustic meatus lies in the?

- A. frontal bone
- B. parietal bone
- C. temporal bone
- D. occipital bone
- E. sphenoid bone

34. C

35. The superior orbital fissure transmits which of the following?

- A. Olfactory nerve
- B. Optic nerve
- C. Trochlear nerve
- D. Facial nerve
- E. Vagus nerve

35. C

36. The foramen magnum transmits the?

- A. Pons
- B. Medulla
- C. midbrain
- D. Thalamus
- E. Hypothalamus

36. B

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37. The foramen rotundum transmits the?

- A. Mandibular nerve
- B. Ophthalmic nerve
- C. Olfactory nerve
- D. Maxillary nerve
- E. Optic nerve

37. D

### Physiology

#### No. of Mcqs=45

38. Monosynaptic excitation of ipsilateral homonymous muscle is an example of

- A. Stretch reflex
- B. Pupillary light reflex
- C. Golgi tendon reflex
- D. Flexor withdrawal reflex
- E. Crossed extensor reflex

38. A

Hint: Homonymous means 'same muscle that was 'stretched'

Reference: BRS physiology (Edition:7<sup>th</sup>)

Chapter#2 Page# 51

39. A specialized expanded tip tactile receptor in the dermis of hairy skin to detect touch sensation is?

- A. Free nerve ending
- B. Golgi tendon organ
- C. Merkel's disc
- D. Pacinian corpuscle
- E. Ruffini's ending

39. C

Reference:

Guyton Ch#48 Page#607

40. Sana had a head injury and her MRI showed rupture of middle cerebral artery. This will most likely cause?

- A. Motor abnormalities
- B. Loss of vision
- C. Loss of taste sensations
- D. Aphasia
- E. Abnormal gait

40. Both A and D Are correct

References:

Guyton Chapter#62

Page#790

Topic: Cerebral Stroke Occurs when cerebral blood vessels are blocked

Snell's Neuroanatomy:

Ch#17 Page# 472,467

Topic: Occlusion of middle cerebral artery

41. A medical student strikes the patellar tendon with a hammer leading to extension of the leg. The extensors in this case contract and flexors relax due to the mechanism of?

- A. Crossed extension
- B. Inverse stretch reflex
- C. Lateral inhibition
- D. Reciprocal innervation

41. D

Guyton Chapter 55 Page#703

## Medical Bheap Mcqs

E. Withdrawal reflex

42. Regarding Alpha motor neurons?

- A. Located in the posterior horn of the cord gray motor
- B. Excite intrafusal fibers
- C. 5 micrometer in diameter
- D. Excite motor unit
- E. Responsible for muscle tone

43. If a cerebellar lesion is associated with severe loss of equilibrium, which part of cerebellum is most likely damaged?

- A. Vermis
- B. Intermediate zone
- C. Lateral zone
- D. Flocculonodular lobe
- E. Anterior lobe

44. A patient presented to the eye OPD with complaint of loss of vision in the lateral part of field of vision of both eyes. He was diagnosed with bitemporal hemianopia. CT scan showed a pituitary gland tumor, which part of visual pathway is affected?

- A. Optic chiasma
- B. Optic nerve
- C. Optic radiations
- D. Optic tract
- E. Visual cortex

45. In the PNS, the neuroglial cells that form protective myelin sheaths are:

- A. Astrocytes
- B. Ganglionic cells
- C. Microglia
- D. Oligodendrocytes
- E. Schwann Cells

46. The sympathetic preganglionic fibers originating from T10-L2 are distributed to which of the following areas:

- A. Heart
- B. Kidneys
- C. Liver
- D. Lower limb
- E. Last 13 of large intestine

42. D

Hint: Innervate Extrafusal muscle fibers to activate Motor unit

43. D. Flocculonodular lobe also known as vestibulocerebellum

Guyton: Ch#57 Page#726

44. A

Explanation: The two nasal retinal fibers (which are responsible for transmitting visual information from the Temporal Visual Fields) cross at the optic chiasma. A pituitary tumor which compresses this chiasma would cause loss of vision from the right and left Temporal Visual Fields (bitemporal hemianopia)

45. E

Hint: Schwann cells remember by COPS....Central NS by oligodendrocytes and Peripheral by Schwann cells

46. D

sympathetic innervation of lower limb arteries

In my opinion this mcq has mistake, it should be from T12-L2

**Reference:** Guyton: chapter 61, Page#774

## Medical Bheap Mcqs

47. EPSPs produced by many different presynaptic fibers converging on a single postsynaptic neuron, causing summation, best describe:

- A. Spatial summation
- B. Synaptic fatigue
- C. Synaptic inhibition
- D. Temporal summation
- E. Synaptic plasticity

48. A patient has a tremor at rest. The patient leans forward while walking and makes small shuffling steps. On passive bending of the arm, increased resistance is noted. Which of the following fibers are most likely damaged in this patient?

- A. Rubrospinal
- B. Nigrostraital
- C. Corticostraital
- D. Corticospinal
- E. Pallidothalamic

49. Sensations carried by the dorsal column pathway?

- A. Crude touch
- B. heat and cold
- C. Pain
- D. Position sensation
- E. Tickle and itch

50. The radiology department in HMC, Hayatabad received an MRI brain with a mass in the region globus pallidus. The most likely finding in the patient are?

- a. Akinesia
- B. Athetosis
- C. Chorea
- D. Hemiballismus
- E. Nystagmus

51. A 60 year old woman was diagnosed with Hungtington's chorea. The affected neurons are in?

- A. Anterior cerebellum
- B. Subthalamus
- C. Substantia nigra
- D. Straitum
- E. Vermis

47. A

Hint: Excitatory Postsynaptic Potential

48. B

49. D

50. B

Lesion in/Damaged Area	Resulting Abnormality
Globus Pallidus	Athetosis
Subthalamus	Hemi-Ballismus
Putamen	Chorea
Substantia Nigra	Parkinson's disease

Mnemonic: GPA

G= globus P=pallidus

A=athetosis

51. D

Hint: damage of Caudate and putamen (Staitum)....An autosomal dominant hereditary disorder

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52. The condition resulting from a lesion in the premotor area that causes impairment of a musician's ability to play the piano is called?

- A. Athetosis
- B. Astereognosis
- C. Apraxia
- D. Aphasia
- E. Amorphosynthesis

53. The following is an example of implicit memory?

- A. Drive a car
- B. Learn to ride a bicycle
- C. Reasoning and decision making
- D. Recollect an event
- E. Remember the time of an appointment

54. A 17 years old boy had a traumatic brain injury sustained when he fell off his motorcycle. He developed fever of 105 F that is unrelated to infection or inflammation. The most likely cause of fever is a lesion of the following nucleus of hypothalamus?

- A. Anterior
- B. Arcuate
- C. Paraventricular
- D. Preoptic
- E. Posterior

55. A 25 years old boy is admitted to the hospital with a traumatic brain injury. He is now eating objects like paper, pens, and is hyperactive with inappropriate social behavior. His MRI shows bilateral lesion of?

- A. Amygdala
- B. Cingulate gyrus
- C. Hippocampus
- D. Olfactory bulb
- E. Mammillary bodies

52. C

53. A

Implicate memory: Once you learned you don't need to relearn it again, it is non-conscious, means you don't purposely try to remember, driving a car or riding a bicycle it is implicit type memory, once you learned how to drive or ride, even after few years you can drive you don't need to relearn....

While Explicit memory is conscious, means you need to bring into awareness, in option B learning to ride a cycle, it means you are trying to intentionally remember something and bring it you're your conscious level.

(A comment from a page follower)

54. Both A and D are correct but most correct would be **D** because in the question 'nucleus' is mentioned not 'region'

**Anterior(preoptic)**=>Anti-rise centre

**Posterior**=>Anti-fall centre

55. A

Hint: Bilateral lesion of amygdala results in 'The kluver-Bucy Syndrome' characterized by:

Loss of fear, extreme curiosity, hyperphagia (eating of even solid non eatable objects) and hypersexuality.

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56. Cerebral dominance designates the hemisphere dominant for?

- A. Visual spatial skills
- B. Muscle skills
- C. Language
- D. Emotion
- E. Artistic skills

57. The chemical mediators of sympathetic fibers to most sweat glands is

- A. Dopamine
- B. Norepinephrine
- C. Acetyl choline
- D. tyrosine
- E. Serotonin

58. Intraocular pressure of 45mmHg can lead to:

- A) Bulging of optic disc
- B) Cupping of optic disc
- C) Cupping of mucula
- D) Positive accommodation
- E) Negative accommodation

59. Long term potentiation involve:

- A) Acetyl choline receptors and  $Ca^{++}$  channels
- B) GABBA and potassium channels
- C) Glutamate and potassium channels
- D) NMDA receptors and calcium channels
- E) NMDA receptors and potassium channels

60. Sobia complains of frequent headaches and has difficulty of reading her books. Her distant vision is fine. She is young and her ophthalmologist advises a plus lens. The underlying problem is:

- A) Opaque lens
- B) Protein denaturation in lens
- C) Strong lens system
- D) Uneven lens
- E) Weak lens system

61. A man had an injury to his eye after which he developed blurred vision in both horizontal and vertical planes. His near and far both visions are affected. He is diagnosed to have astigmatism. This can be corrected by using the following lens:

- A) Bifocal
- B) Convex
- C) Concave

**56. C**

Guyton; ch#58, page#741

**57. C**

Guyton Ch#61 page#775

**58. B**

**Hint:** central portion of optic disc is called optic cup.

↑intraocular pressure>>loss of blood flow to optic nerve>>result in nerve fibres death>>cup size↑

**59. D**

**Long term potentiation:**

It is strengthening of synapses for long term memory. Glutamate is the neurotransmitter working on NMDA receptors and increase  $Ca^{+2}$  influx. The  $Ca^{+2}$  in turn activates several proteins in post synaptic neuron.

For further details and exact mechanism watch a short video of "Alila medical media" or "two minute neuroscience" on this topic on youtube.

**60. E**

Because her distant vision is Ok but have problem in reading book so have weak lens system therefore can't converge light at retina to see near objects clearly

**61. D**

Guyton Ch#50 Page#642

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- D) Cylindrical
- E) Trifocal

62. The functions of middle ear are:

- A) Amplification, frequency detection and impedance matching
- B) Attenuation, impedance matching and pressure equalization
- C) Amplification, localization and protection
- D) Protection, localization and impedance matching
- E) Pressure equalization and frequency detection

62. B

Guyton Ch#52

63. A 30 year old woman who complains of slowly progressive loss of vision in left visual field of both eyes is seen by a neurologist. A CT Scan demonstrate a high density space occupying lesions producing the visual field defect by compressing the

- A) Left optic nerve
- B) Left optic tract
- C) Right optic nerve
- D) Right optic tract
- E) Optic chiasma

63. D

Guyton Ch#52

Hint: right optic tract carry info from left visual field and left optic tract carry info from right visual field.

64. The taste sensations from the tongue reach the brainstem and relay in this structure:

- A) Inferior colliculus
- B) Nucleus of tractus solitarius
- C) Olivary nucleus
- D) Superior colliculus
- E) Ventroposterior nucleus of thalamus

64. B

Guyton Ch#54 page#687

65. The bitter taste activates the bud by the:

- A) Activation of phospholipase C
- B) Cyclic AMP mechanism
- C) Cyclic GMP mechanism
- D) Direct activation of sodium channels
- E) Direct activation of potassium channels

65. A

Source: Google

66. The following connects the nuclei of nerves involved in the movement of extraocular muscles along with vestibular nucleus:

- A) Lateral longitudinal fasciculus
- B) Lateral geniculate body
- C) inferior colliculus
- D) Superior colliculus
- E) Medical longitudinal fasciculus

66. E

## Medical Bheap Mcqs

67. Endolymph in the scala media has the high concentration of:

- A) Sodium ions
- B) Potassium ions
- C) Calcium ions
- D) Chloride ions
- E) Hydrogen ions

**67. B**

**Reference: guyton ch#53  
page#677**

68. A patient comes to ophthalmologist with the complain of blurring of vision. He has history of recent head injury. On examination his eye shows rapid to and fro movements in a pendular fashion and the eye couldn't move smoothly. What is the name of this condition

- A) Anopia
- B) Deutranopia
- C) Hemiballismus
- D) Nystagmus
- E) qhadranopia

**68. D**

69. Which of the following functions as a frequency analyzer in hearing:

- A) Basilar membrane
- B) Tectorial membrane
- C) Reissner's membrane
- D) Middle ear ossicles
- E) A and B

**69. A**

**Reference: Guyton Ch#53  
Page#675**

70. When parallel light rays pass through a concave lens, which of the following occurs?

- A) The rays converge toward each other
- B) The rays diverge from each other
- C) The rays maintain a parellel relationship
- D) The rays reflect back in the direction from where they came
- E) The rays will have no convergence or divergence

**70. B**

**Reference: Guyton ch#50**

71. After olfactory receptors cell bind odour molecules a sequence of intracellular events occurs that culminates in the entrance of specific ions that depolarizes the olfactory receptor cell. Which ions are involved?

- A) Calcium
- B) Chloride
- C) Hydrogen
- D) Sodium
- E) Potassium

**71. D**

**Reference: Guyton ch#54**

**Hint:** activation of receptor protein leads to Gs pathway that increases cAMP. In turn gated sodium ion channels open up. Na<sup>+</sup> causes depolarization of olfactory receptor cell.

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72. 20 years old lady recently had a road traffic accident. She got admitted in nearby hospital and recovered after sustaining minor injuries to face and nose. Prior to discharge she was presented with flower's bouquet. She complained that she couldn't appreciate smell of flowers . Which nerve is damage

- A. Optic nerve
- B. Facial nerve
- C. Vagus nerve
- D. Hypoglossal nerve
- E. Olfactory nerve

**72. E**

73. About equal stimulation of green, red and blue cones gives one sensation of seeing which of the following color

- A. Black
- B. Silver
- C. White
- D. Black and White
- E. Gray

**73. C**

74. The example of conditioned reflex is?

- A. Cord righting reflex
- B. Sneezing
- C. Stepping reflex
- D. Watering of mouth on the smell of food
- E. Withdrawal of hand on touching a hot object

**74. D**

75. Lactic acid produced during brain metabolism can lead to increased cerebral blood flow due to increase in ionic concentration of

- A. Calcium
- B. Chloride
- C. Hydrogen
- D. Potassium
- E. Sodium

**75. C**

76. Increased intracranial pressure may cause?

- A. Bulging of optic disc
- B. Cranial fractures in children
- C. Cupping of the optic disc
- D. Increase in cerebral blood flow
- E. Pulmonary hypertension

**76. A**

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77. Statoconia refer to?

- A. Cupula with cilia of hair cells in crista ampullaris
- B. Cupula with cilia of hair cells in macula
- C. Gelatinous layer with CaCO<sub>3</sub> crystals in crista ampullaris
- D. Gelatinous layer with CaCO<sub>3</sub> crystals in macula of utricle
- E. Macula in the utricle and saccule of membranous labyrinth

78. The second messenger system in case of sense of olfaction is mediated by?

- A. Adenyl cyclase
- B. Tyrosine kinase
- C. Inositol triphosphate
- D. Phospholipase
- E. Calcium calmodulin

79. Saba is appearing for proff exam. She is very nervous and anxious. The physiological change seen in this case decreased:

- A. Respiratory rate
- B. Heart rate
- C. Mental Activity
- D. Salivation
- E. Blood Pressure

80. A 20 year old girl is brought to causality with muscarinic poisoning. The following is consistent with this case:

- A. Bradycardia
- B. Constipation
- C. Dilation of pupils
- D. Dryness of mouth
- E. Skeletal muscle contraction

81. The mechanoreceptors are stimulated mainly by;

- A. Chemical change
- B. Environmental change
- C. Temperature
- D. Pressure
- E. Light Energy

82. The following is true regarding blood-brain barrier in an adult human:

77. D

78. A

**Hint:** can also be through IP<sub>3</sub> but most frequent is cAMP.

79. D

Hint; Sympathetic stimulation

80. A

Muscarine poisoning is characterized by miosis, blurred vision, increased salivation, excessive sweating, lacrimation, bronchial secretions, bronchoconstriction, bradycardia, abdominal cramping, increased gastric acid secretion, diarrhea and polyuria.

81. D

82. C

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- A. Absolute Barrier
- B. Completely permeable
- C. Immature At birth
- D. Intact in meningitis
- E. matures at birth

**Histology****No. of MCQS=11**

83- The oral cavity is mainly lined with:

- a. Stratified squamous epithelium
- b. Simple squamous epithelium
- c. Simple columnar epithelium
- d. Simple cuboidal epithelium
- e. Stratified Columnar Epithelium

**83. a**

**Reference:** Laiq Hussain's Histology Chapter#18 Page# first page of chapter

84- Fungiform papillae are related to which of the following structures?

- a. Skin
- b. Tongue
- c. Esophagus
- d. Thyroid gland
- e. Nasal septum

**84. b**

**Reference:** Laiq Hussain's Histology Chapter# 18 Page#171  
**Topic:** tongue

85- The papillae distributed in the V-shaped region of the tongue are:

- a. Circumvallate papillae
- b. Filiform papillae
- c. Fungiform papillae
- d. Foliate Papillae
- e. Lymphoid nodules

**85. a**

**Reference:** Laiq Hussain's Histology Chapter# 18 Page#171  
**Topic:** tongue

86. A gelatinous substance called colloid is present in which of the following glands?

- a. Pituitary gland
- b. Parotid gland
- c. Thyroid gland
- d. Parathyroid gland
- e. Adrenal gland

**86. c**

**Reference:** Laiq Hussain's Histology Chapter#16 Page#156  
**Topic:** thyroid gland

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87. The calcitonin is synthesized by:

- a. Parafollicular cells
- b. Follicular cells
- c. Parathyroid gland
- d. Adenohypophysis
- e. Neurohypophysis

88. Which of the following structure is related to secretion of saliva?

- a. Liver
- b. Pancreas
- c. Parotid gland
- d. Bruner's gland
- e. Palatine tonsil

89. The outer most layer of eye is sclera which continue anteriorly as

- a. Iris
- b. Ciliary body
- c. Retina
- d. Choroid
- e. Cornea

90- Which of the following structures has many serous demilunes?

- a. Parotid gland
- b. Submandibular gland
- c. Pancreas
- d. Liver
- e. None

91- Rods and cones are present in which the following structures?

- a. Sclera of eye
- b. Cornea
- c. Optic nerve
- d. Retina
- e. Ciliary body

**87. a**

**Reference:** Laiq Hussain's  
Histlogy Chapter# 16  
Page#157  
Topic: thyroid gland

**88. c**

**Reference:** Laiq Hussain's  
Histlogy Chapter# 19  
Page#193

**89. e**

**Reference:** Laiq Hussain's  
Histlogy Chapter# 23  
Page#245

**90. b**

**Reference:** Laiq Hussain's  
Histlogy Chapter# 19  
Page#194

**91. d**

**Reference:** Laiq Hussain's  
Histlogy Chapter#23  
Page#247, 248

## Medical Bheap Mcqs

92. Which of the following structure have no blood vessels?

- Sclera of eye
- Cornea
- Retina
- Optic nerve
- Cillary body

93. Which of the following structure has multiple cones related to vision?

- Fovea
- Optic disc
- Optic nerve
- Optic chlasma
- Cornea

94. Meckel's cartilage is related to:

- Maxillary process
- Mandibular process
- Frontonasal prominence
- Relchert's cartilage
- Styloid process

**Embryology:****No. of mcqs: 8**

95. Nerve of the third pharyngeal arch is

- Facial
- Glossopharyngeal
- Vagus
- Trigeminal (mandibular branch)
- Trigeminal (maxillary branch)

96. Embryologically cerebral cortex is derived from

- Telencephalon
- Diencephalon
- Mesencephalon
- Metencephalon
- Myelencephalon

**92. b**

**Reference:** Laiq Hussain's Histology Chapter# 23

**93. a**

**Reference:** Laiq Hussain's Histology Chapter# 23 Page#251

**94. b**

**Hint:** Merkle's Cartilage is a piece of cartilage from which the mandible (lower jaws) of vertebrates evolved.

**95. B**

Pharyngeal arch	Nerve
First Maxillary process	Maxillaery branch of trigeminal nerve
Mandibular process	Mandibular branch of trigeminal nerve
Second (Hyoid)	Facial nerve
Third	Glossopharyngeal
Fourth	Superior laryngeal br. Of vagus n.
Fifth	Recurrent Laryngeal br. Of vagus nerve

**96. A**

## Medical Bheap Mcqs

97. Lateral ventricles communicate with third ventricles of brain through

- Aqueduct of Silvius
- Interventricular foramen of Monro
- Foramen of Luschka
- Foramen of Magendie
- Rhomboid fossa

98. The lens of the eye is derived from:

- Endoderm
- Neural crest
- Neuroectoderm
- Mesoderm
- Ectoderm

99. Regarding pharyngeal apparatus, the first pharyngeal cleft helps in development of

- Inferior parathyroid gland
- Superior parathyroid gland
- The Eustachian tube
- Part of the middle ear
- External auditory meatus

100. The cervical sinus is related the:

- 2nd, 3rd & 4th pharyngeal clefts
- First pharyngeal cleft
- Second pharyngeal pouch
- Third pharyngeal pouch
- Forth pharyngeal pouch

101. The superior parathyroid gland is derived from

- First pharyngeal cleft
- Second pharyngeal cleft
- First pharyngeal pouch
- Second pharyngeal pouch
- Fourth pharyngeal pouch

102. The structure that develops from the 2nd pharyngeal pouch is

- Tympanic cavity
- Inferior parathyroid gland
- Superior parathyroid gland
- Palatine tonsil
- Thymus gland

**97. b**

**98. e**

**Hint:**

Eye is derived from three sources:

- Neuroectoderm:** form retina and optic nerve
- Surface ectoderm:** form lens and chorneal epithelium
- Mesoderm of head:** form vascular and connective tissue of eye

**99. E**

**Hint;** four pharyngeal clefts appear in 5th week of development. The first pharyngeal cleft forms the external auditory meatus. The remaining clefts are buried in 2<sup>nd</sup> pharyngeal arch.

**100. a**

**Reference:** Langman's Embryology Ch#17, Page#291,292

**101. e**

**Reference:** Langman's Embryology Ch#17, Page#291 Table#17.2

**102. d**

**Reference:** same as for Q.no. 101

## Medical Bheap Mcqs

**Biochemistry****No.of Mcqs=5**

103. Allopurinol is a competitive inhibitor of the enzyme.....?

- A. Adenine deaminase
- B. HGPRT
- C. OMP decarboxylase
- D. Purine nucleotide phosphrylase
- E. Xanthine oxidase

**103. E**

104. The promotor region in prokaryotic transcription is recognized by?

- A. Alpha factor of RNA polymerase
- B. Sigma factor of RNA polymerase
- C. Rho factor protein
- D. Single strand binding protein
- E. DNA binding protein

**104. B****Reference:**

Pankaja Niak  
Chapter: 19 (Transcription  
and RNA processing)  
Page 425,426  
Topic: Transcription in  
Prokaryotes  
Sub-topic: Initaition Factors

105. The end product of Uracil catabolism is?

- A. Beta amino isobutyrate
- B. Dihydro uracil
- C. Dihydrothymine
- D. Uric acid
- E. Beta alanine

**105. E**

106. PRPP glutamyl amidotransferase:

- A. Inverts the configuration of sugar from alpha to beta
- B. Inverts the configuration of sugar from beta to alpha
- C. Converts ribose to PRPP
- D. Converts carbomyl phosphate to orotic acid
- E. Converts urea into NH<sub>3</sub>

**106. A****Reference:**

Satyanarayan  
Page: 390  
Topic: Denovo Synthesis of  
Purine (2<sup>nd</sup> step)

107. An example of excitatory neurotransmitter is?

- A. Dopamine
- B. Glutamate
- C. Glycine
- D. Epinephrine
- E. Histamine

**107.B**

## Medical Bheap Mcqs

**Minor Subjects****PRIME**

108. A second year medical student wanted to conduct a research study on the fears and apprehensions of a group of individuals who had survived a devastating earthquake. What would be the correct type of qualitative research for this study?

- A. Ethnography
- B. Phenomenology
- C. Grounded theory
- D. Case study
- E. Historical research

**108. E**

109. A second year medical student wanted to conduct a research study to understand the culture of Kalash tribe of Northern Pakistan. What would be the correct type of qualitative research for this study?

- A. Ethnography
- B. Phenomenology
- C. Grounded theory
- D. Case study
- E. Historical research

**109. A**

110. You are a co-investigator in a research project initiated by your research supervisor to study the eating habits of school going children in Peshawar. You have been assigned to collect data from five schools in a manner that all the children have equal chance to be selected in the sample. What will be your preferred sampling technique?

- A. Convenience sampling technique
- B. Purposive sampling technique
- C. Quota sampling technique
- D. Simple Random sampling technique
- E. Snowball sampling technique

**110. D**

111. When a researcher manipulates a condition and measures the effects change, it refers to:

- A. Effect
- B. Exercise
- C. Effect size
- D. Intervention
- E. Outcome

**111. D**

## Medical Bheap Mcqs

112. If a data arranged in specific order i.e. ascending or descending and the change in order makes it haphazard, it is:

- A. Frequency table
- B. Nominal data
- C. Ordinal data
- D. Ratio scale
- E. Rate

112. C

**Explanations of Prime Mcqs:****Q.No. 108 and 109**

There are six major types of qualitative research:

1. Case study
2. Ethnographic
3. Phenomenological
4. Historical research
5. Grounded theory
6. Action research

**Historical Research:**

It involves the examination of primary sources to make you understand the connection of past Events to the Present time. Example is Q.no. 108.

**Ethnography:**

It involves studying a particular cultural group to get a clear understanding of their belief systems and practices. It also aims to have a more in-depth understanding of the organizational setup and lifestyle of the members of the group.

For studying all of these watch a 12 minute video on youtube. Search “types of qualitative research by GM lectures” in youtube.

**Q.No. 110****What is sampling?**

Sampling is a technique of selecting individual members or a subset of the population to make statistical inferences from them and estimate characteristics of the whole population. Different sampling methods are widely used by researchers so that they do not need to research the entire population to collect required data.

For example, if a drug manufacturer would like to research the adverse side effects of a drug on the country's population, it is almost impossible to conduct a research study that involves everyone. In this case, the researcher

## Medical Bheap Mcqs

decides a sample of people from each demographic and then researches them, giving him/her indicative feedback on the drug's behavior.

### **Types of sampling:**

Sampling is of two types:

Probability sampling and non-probability sampling.

### **Probability sampling:**

Probability sampling is a sampling technique where a researcher sets a selection of a few criteria and chooses members of a population randomly. All the members have an equal opportunity to be a part of the sample with this selection parameter.

Probability sampling includes the following:

1. Simple random sampling
2. Cluster sampling
3. Systemic sampling
4. Stratified random sampling

### **Non-probability sampling:**

In non-probability sampling, the researcher chooses members for research at random. This sampling method is not a fixed or predefined selection process. This makes it difficult for all elements of a population to have equal opportunities to be included in a sample.

Non probability sampling includes the following:

1. Convenience sampling
2. Jugdemental/purposive sampling
3. Snowball sampling
4. Quota sampling

For further studying this topic in detail visit the following link:

<https://www.questionpro.com/blog/types-of-sampling-for-social-research/>

### **Q.no. 112**

Visit the following link for details of "levels of Data measurement"

<https://www.graphpad.com/support/faq/what-is-the-difference-between-ordinal-interval-and-ratio-variables-why-should-i-care/>

## Medical Bheap Mcqs

**Medicine****No. of mcqs=2**

113. The Bell's palsy patient will exhibit the symptoms of:

- A. Loss of sense of taste
- B. Facial twitching
- C. Droopy eyelid
- D. Ipsilateral facial paralysis
- E. All of the above

114. While differentiating between the viral and bacterial meningitis which of the following parameter is most important?

- A. CSF colour
- B. CSF cell count
- C. CSF pressure
- D. CSF specific gravity
- E. CSF white blood cells

**Pharmacology****No. of Mcqs=1**

115. Benzodiazepines act on the CNS through the following mechanism:

- A. Decreasing the activity of GABA
- B. Increasing serotonin
- C. Increasing the activity of GABA
- D. Increasing catecholamines
- E. Inhibit serotonin

**Pathology****No. of mcqs=1**

116. Which of the following are the classic pathological features of Alzheimer's disease?

- A. Neurofibrillary tangles and senile plaques
- B. Neurofibrillary tangles
- C. Lewy bodies
- D. Hirano bodies
- E. All of the above

**113. E****114. E****Hint:**

Wbc are very high in bacterial meningitis and other major difference is low glucose in bacterial meningitis.

**115. C**

**Hint:** Benzodiazepines are a group of CNS depressants which induce feelings of calm, drowsiness, and sleep. They act by facilitating the binding of inhibitory neurotransmitter GABA at various GABA receptors.

**116. E**

## Medical Bheap Mcqs

**Forensic medicine****No. of mcqs=1**

117. The essential clinical criteria for diagnosis of death include:

- A. Absence of pulse
- B. Absence of reflexes
- C. Absence of respiration
- D. Bilateral fixed dilatation of pupils
- E. Falling blood pressure

117.

**ENT****No. of mcqs=1**

118. Functions of the middle ear include

- A. Transmission of vibration
- B. Impedance matching
- C. Attenuation reflex
- D. All of the above
- E. None of the above

118. D

**Pediatric Surgery****No. of mcqs=1**

119. Ankyloglossia is the congenital abnormality of?

- A. Upper lip
- B. Tongue
- C. Palate
- D. Uvula
- E. Lower lip

119. B

**EYE****No. of mcqs=1**

120. Regarding colour vision

- A. Monochromatic light stimulates one type of cone

**120. C**

**Protanopia:** an inability to perceive red colour. Color blindness is X-linked recessive trait.

## Medical Bheap Mcqs

- B. Red cones are not stimulated by green light at all
- C. Protanopia is more common in males
- D. Colour blindness is an autosomal recessive disorder
- E. Different types of vitamin A is found in different cones

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