

Ch. 14 Brain & Cranial Nerves Practice Questions

- 1) The Brainstem includes what structures?
 - i) The Medulla oblongata
 - ii) The Pons
 - iii) The midbrain/mesencephalon
 - iv) Cerebrum

A) All of the above
B) i, ii, iii
C) i, iii, iv
D) ii, iii, iv
- 2) The diencephalon includes what two structures?
 - i) Thalamus
 - ii) Corpus callosum
 - iii) Corpora quadrigemina
 - iv) Hypothalamus
 - v) Pineal body

B) i, iv
C) iv, v
D) iii, iv
E) ii,iii
- 3) How many lobes are there in the cerebrum?

A) 4
B) 5
C) 6
D) 3
- 4) The lobes of the cerebrum are the _____.
 - i) Parietal
 - ii) Frontal
 - iii) Temporal
 - iv) Occipital
 - v) Ethmoid

B) i, ii, iii, iv
C) i, ii, iii, v
D) i, ii, iv, v
E) ii, iii, iv, v
- 5) The ____ cortex lies in the ____ lobe and handles information from the senses of hearing and balance.

- A) Auditory, Parietal
 - B) Optic, Frontal
 - C) Gustatory, Parietal
 - D) Olfactory, Temporal
- 6) Information from the sense of vision comes from the ____ cortex which lies in the ____ lobe.
- A) Olfactory, Parietal
 - B) Optic, Frontal
 - C) Optic, Occipital
 - D) Olfactory, Parietal
- 7) The sensory input from the taste-receptors on the tongue go to the ____ cortex which lies in the ____ cortex/lobe which is part of primary ____ lobe.
- A) Gustatory, Frontal, Insula
 - B) Gustatory, Insula, Frontal
 - C) Auditory, Occipital, Insula
 - D) Gustatory, Frontal, Insula
- 8) Scents that are processed by the olfactory bulb of the olfactory cranial nerve have their information processed by the ____ cortex that lies in the ____ lobe.
- A) Gustatory, Temporal
 - B) Auditory, Occipital
 - C) Olfactory, Parietal
 - D) Gustatory, Temporal
- 9) The ____ is the link between the CNS and the ____ system that regulates the hormone levels of the body.
- A) Hypothalamus, Endocrine
 - B) Thalamus, Endocrine
 - C) Hypothalamus, Somatic
 - D) Thalamus, Endocrine
- 10) How many ventricles of the brain are there?
- A) 2
 - B) 1
 - C) 3
 - D) 4
- 11) The ventricle that surrounds the thalamus is the ____ and is also connected to the ____ ventricle(s).
- A) Third, Lateral
 - B) Second, Cerebral
 - C) First, Medial
 - D) Third, Frontal
- 12) The ____ ventricle is continuous with the central canal of the spinal cord and is connected to the third ventricle through a narrow canal called the ____.
- A) Third, arbor aqueduct

- B) Fourth, cerebral aqueduct
 - C) Second, falx aqueduct
 - D) Fourth, arbor aqueduct
- 13) The ventricles that look like a ram's horn when viewed anteriorly are called the ____ ventricles.
- A) Third, first & fourth
 - B) Second, second & fourth
 - C) Lateral, First & Second
 - D) Third, first & fourth
- 14) The ____ connects the ____ ventricle with the third ventricle?
- A) Central aqueduct, third
 - B) Central aqueduct, fourth
 - C) Interventricular foramen, lateral
 - D) Central aqueduct, first
- 15) The primary purpose of the ventricles in the brain is to circulate what?
- A) Cerebrospinal fluid
 - B) Cerebrumsputtum bile
 - C) Cerebrospinal bile
 - D) Dural fluids
- 16) The blood brain barrier is formed by the arrangement of what type of cells?
- A) Neuroglia
 - B) Astrocytes
 - C) Microphages
 - D) Schwann cells
- 17) What cells produce the CSF?
- A) Astrocytes
 - B) Ependymal
 - C) Microphages
 - D) Oligodendrocyte
- 18) The primary purpose of CSF is the delivery of ____ and the removal of ____?
- A) Dissolved gases, nutrients; waste products
 - B) Bile, T-Cells; Buoyancy
 - C) Axolemma, Cytoplasm; Axoplasm
 - D) Hematomas, Osseous tissues; Meningitis
- 19) CSF is produced in the ____ which makes ____ and then circulates within the ____ cranial meningeal space of the cranium.
- A) Cerebral cortex, 600mL, epidural
 - B) Choroid plexus, 500mL, subarachnoid
 - C) Choroid plexus, 600mL, subpia
 - D) Choroid plexus, 500mL, subdural
- 20) The cranial nerves ranked in the numerical order from lowest to highest are?

- A) Olfactory, Optic, Oculomotor, Trochlear, Trigeminal, Abducens, Facial, Vestibulocochlear, Glossopharyngeal, Vagus, Accessory, Hypoglossal
 - B) Optic, Olfactory, Oculomotor, Trochlear, Trigeminal, Abducens, Facial, Vestibulocochlear, Glossopharyngeal, Vagus, Accessory, Hypoglossal
 - C) Olfactory, Oculomotor, Optic, Trochlear, Trigeminal, Abducens, Facial, Vestibulocochlear, Glossopharyngeal, Vagus, Accessory, Hypoglossal
 - D) Olfactory, Optic, Oculomotor, Trochlear, Trigeminal, Accessory Facial, Vestibulocochlear, Glossopharyngeal, Vagus, Abducens, Hypoglossal
- 21) If someone has lost their sense of smell what Cranial nerve is affected?
- A) I
 - B) II
 - C) III
 - D) IV
- 22) Your father is having trouble swallowing since he fell yesterday what nerve is most likely to be damaged?
- A) Glossopharyngeal
 - B) Vagus
 - C) Facial
 - D) Accessory
- 23) A person who is having visions problem recently after hitting their head may have damaged what cranial nerve?
- A) Optic
 - B) Oculomotor
 - C) Olfactory
 - D) Trochlear
- 24) The Abducens nerve helps prevent ____ from being developed due to the constant pulling of the _____ not being able to be controlled properly.
- A) Slurred speech, platysma
 - B) Loss of smell, Obicularis Oris
 - C) Double vision, medial rectus muscle of the eye
 - D) Chewing, Masseter
- 25) If someone has had damage to the occulotomotor nerve what side effects would they experience?
- A) Loss of the ability to smell.
 - B) Loss of motor-control of the eye, the orbicularis oculi, and the pupils won't dilate.
 - C) Inability to see clearly.
 - D) None of the above.
- 26) If someone is unable to rotate their eye left and right, look up and then down they have damage to what nerve?
- A) Trochlear
 - B) Optic

- C) Oculomotor
 - D) Accessory
- 27) The loss of the ability to chew their food likely points to a compression or complete interruption of which cranial nerve?
- A) V
 - B) VIII
 - C) IX
 - D) X
- 28) The loss of the ability to smile on one's face is from interrupted communications from what spinal nerve?
- A) Facial
 - B) Trigeminal
 - C) Hypoglossal
 - D) Glossopharyngeal
- 29) A lack of balance from the body being unable to communicate with the inner ear is a sign that this nerve is no longer receiving the signals that it should.
- A) VIII
 - B) IX
 - C) X
 - D) IV
- 30) The longest autonomic nerve of the body that is involved with the parasympathetic nervous system's control over the heart and lungs is the ____ nerve.
- A) Vagus
 - B) Vestibulocochlear
 - C) Trochlear
 - D) Accessory
- 31) After an injury someone who is no longer able to shrug their shoulders or turn their head from side to side has likely suffered damage to this nerve's pathway.
- A) XI
 - B) X
 - C) IX
 - D) VIII
- 32) The hypoglossal cranial nerve is numbered ____ and innervates the muscles of the tongue.
- A) XII
 - B) XI
 - C) X
 - D) IX
- 33) Blood primarily is supplied to the brain by the ____ and ____.
- A) Jugular veins, vertebral veins
 - B) Carotid arteries, vertebral arteries
 - C) Carotid veins, vertebral veins

- D) Jugular arteries, vertebral arteries
- 34) Blood is drained from the brain by the ____ and ____.
- A) Jugular veins, vertebral veins
 - B) Carotid arteries, vertebral arteries
 - C) Carotid veins, vertebral veins
 - D) Jugular arteries, vertebral arteries
- 35) The cranial meninges of the of the brain ranked from superficial to deep are?
- A) Pia mater, arachnoid mater, dura mater
 - B) Dura mater, arachnoid mater, pia mater
 - C) Arachnoid mater, pia mater, dura mater
 - D) Arachnoid mater, dura mater, pia mater
- 36) The only cranial meninges that has two layers instead of one like the spinal meninges is the ____?
- A) Dura mater
 - B) Pia mater
 - C) Arachnoid mater
 - D) Superficial mater
- 37) What are the dural folds of the brain?
- A) Falx cerebri, tentorium cerebelli, falx cerebelli
 - B) Faux cerebri, tentimus cerebri, faux cerebelli
 - C) Folded cerebelli, tented cerebelli, folded cerebelli
 - D) Falx cerebelli, tentorium cerebri, falx cerebri
- 38) What collects the CSF from the brain and helps send it to the veins?
- A) Dural sinuses
 - B) Subdural spinuses
 - C) Arachnoid sinuses
 - D) Pia sinuses
- 39) What part of the dura mater is fused to the periosteum crista galli of the cranial bone?
- A) Endosteal layer
 - B) Episteal layer
 - C) Epiperiosteum
 - D) Endosteum
- 40) The CSF flows into the dural sinuses from the ____ granulations of the ____ space during its circulation.
- A) Subarachnoid
 - B) Subdural
 - C) Subpia
 - D) Epidural
- 41) Which one of the following is not a primary function of the CSF in regards to the brain?
- A) Protection
 - B) Buoyancy

- C) Maintenance of homeostasis
 - D) Clearing waste materials
 - E) Repairing the periosteum of the cranial bones.
- 42) A partial blockage in the ability to circulate blood in the brain is called a?
- A) CVA
 - B) AMI
 - C) TMI
 - D) ABC
- 43) The primary function of the Medulla Oblongata is?
- A) Coordinating autonomic reflexes
 - B) Interpreting special sensory information
 - C) Relaying information from the endocrine system to the CNS.
 - D) None of the above.
- 44) The pons has nuclei that relay process and relay information from/to the ____?
- A) Cerebellum
 - B) Cerebrum
 - C) Pineal body
 - D) Maxillary body
- 45) The postural muscle reflex that helps with maintaining posture is controlled by which brain division?
- A) Cerebellum
 - B) Medulla oblongata
 - C) Thalamus
 - D) Pons
- 46) The thalamus is primarily a ____?
- A) Relay center
 - B) Processing center of higher-order functions
 - C) Gustatory decision maker
 - D) Visceral functional controller
- 47) Where is CSF found within the spinal cord?
- A) Central Canal and the subdural space
 - B) Central canal and the subarachnoid space
 - C) Subdural space and subpia space
 - D) External canal and subarachnoid space
- 48) The part of the brain that handles higher level functions is the?
- A) Cerebellum
 - B) Cerebrum
 - C) Medulla oblongata
 - D) Midbrain
- 49) What is the connection between the hypothalamus and the pituitary gland called?
- A) Infundibulum

- B) Infundibulum
 - C) Hypothalamohypophyseal link
 - D) Stalk of connection
- 50) A disorder called ____ is of the ____ is caused by damage from trauma or a stroke but more often is from intoxication and results in ____
- A) Cerebrum, Pons, decreased motor control
 - B) Ataxia, Cerebellum, decreased motor control
 - C) Ataxia, Midbrain, decreased motor control
 - D) Cerebrum, Pons, decreased motor control
- 51) The hypothalamus secretes which two hormones?
- A) Oxytocin, Antidiuretic hormone
 - B) Oxytocin, Diuretic hormone
 - C) Human growth hormone, glucagon
 - D) PTH, adrenaline
- 52) The ____ system links the conscious functions of the cerebral cortex with the autonomic functions of the brain stem, facilitates memory storage and retrieval, and establishes emotional states.
- A) Lumbar
 - B) Endocrine
 - C) Emotional
 - D) Locomotor
 - E) Limbic
- 53) The sulcus that divides the frontal lobe from the parietal lobe is the?
- A) Temporal sulcus
 - B) Central sulcus
 - C) Parieto-Occipital Sulcus
 - D) Lateral Sulcus
- 54) The temporal lobe is separated from the frontal lobe by the ____ sulcus.
- A) Lateral Sulcus
 - B) Parieto-Occipital Sulcus
 - C) Temporal sulcus
 - D) Central sulcus
- 55) Parietal lobe is separated from the occipital lobe by what sulcus?
- A) Temporal sulcus
 - B) Central sulcus
 - C) Lateral Sulcus
 - D) Parieto-Occipital Sulcus
- 56) What is the feature of the brain that divides the cerebrum into two hemispheres?
- A) Longitudinal fissure
 - B) Sagittal fissure
 - C) Medial fissure

- D) Coronal fissure
 - E) Longitudinal gyrus
- 57) The Insula lies ____ to the lateral sulcus and contains the gustatory cortex deep within the cerebrum.
- A) Medial
 - B) Sagittal
 - C) Lateral
 - D) Superficial
- 58) The term for each hemisphere of the brain having specialized functions is called?
- A) Hemispheric specialization
 - B) Hemispheric localization
 - C) Hemisphere specialized functionality
 - D) None of the above
- 59) You are sitting at the desk with your head on your hand what nerve is likely to be pinched?
- A) Ulnar
 - B) Radial
 - C) Brachial
 - D) Femoral
- 60) What type of brain waves are normally seen in a healthy adult who is awake, at rest and has their eyes closed?
- A) Alpha
 - B) Beta
 - C) Gama
 - D) Delta
- 61) You are stressed as you take your anatomy final what types of waves would show up on an EEG of your brain?
- A) Beta
 - B) Alpha
 - C) Gamma
 - D) Delta
- 62) You are extremely flustered and frustrated as you cannot remember such an easy question on your anatomy final exam what type of brain waves might you be emitting if you were hooked up to an EEG?
- A) Theta
 - B) Delta
 - C) Alpha
 - D) Beta
- 63) What is a temporary cerebral disorder that arises from a temporary interruption in the normal brain wave patterns?
- A) Seizure
 - B) Septic shock

- C) Dancing fever
- D) Pneumonia

Chapter 14 Answer Key

- 1) B. i, ii, iii (The Medulla oblongata, The Pons, The midbrain/mesencephalon)
- 2) B. i, iv (Thalamus, Hypothalamus)
- 3) A. 4
- 4) B. i, ii, iii, iv (Frontal, Parietal, Temporal, Occipital)
- 5) A. Auditory, Parietal
- 6) C. Optic, Occipital
- 7) B. Gustatory, Insula, Frontal
- 8) C. Olfactory, Parietal
- 9) A. Hypothalamus, Endocrine
- 10) D. 4
- 11) A. Third, Lateral
- 12) B. Fourth, cerebral aqueduct
- 13) C. Lateral, First & Second
- 14) B. Central aqueduct, fourth
- 15) A. Cerebrospinal fluid
- 16) B. Astrocytes
- 17) C. Ependymal
- 18) A. Dissolved gases, nutrients; waste products
- 19) B. Choroid plexus, 500mL, subarachnoid
- 20) A. Olfactory, Optic, Oculomotor, Trochlear, Trigeminal, Abducens, Facial, Vestibulocochlear, Glossopharyngeal, Vagus, Accessory, Hypoglossal
- 21) A. I
- 22) A. Glossopharyngeal
- 23) A. Optic
- 24) C. Double vision, medial rectus muscle of the eye
- 25) B. Loss of motor-control of the eye, the orbicularis oculi, and the pupils won't dilate.
- 26) A. Trochlear
- 27) A. V
- 28) A. Facial
- 29) D. VIII
- 30) A. Vagus
- 31) B. XI
- 32) A. XII
- 33) B. Carotid arteries, vertebral arteries
- 34) A. Jugular veins, vertebral veins
- 35) B. Dura mater, arachnoid mater, pia mater

- 36) A. Dura mater
- 37) A. Falx cerebri, tentorium cerebelli, falx cerebelli
- 38) A. Dural sinuses
- 39) A. Endosteal layer
- 40) A. Subarachnoid
- 41) E. Repairing the periosteum of the cranial bones.
- 42) A. CVA or Stroke
- 43) A. Coordinating autonomic reflexes
- 44) A. Cerebellum
- 45) A. Cerebellum
- 46) A. Relay center
- 47) B. Central canal and the subarachnoid space
- 48) B. Cerebrum
- 49) A. Infundibulum
- 50) B. Ataxia, Cerebellum, decreased motor control
- 51) A. Oxytocin, Antidiuretic hormone
- 52) E. Limbic
- 53) D. Central sulcus
- 54) C. Lateral Sulcus
- 55) D. Parieto-Occipital Sulcus
- 56) A. Longitudinal fissure
- 57) A. Medial
- 58) A. Hemispheric specialization
- 59) A. Ulnar
- 60) A. Alpha
- 61) A. Beta
- 62) A. Theta
- 63) C. Seizure