Lecture #04 Cranial Nerves

Question 1: Which is caused by brainstem damage due to occlusion of a branch of the posterior cerebral artery, in addition to ipsilateral oculomotor (III) nerve palsy?

a) Contralateral sympathetic autonomic deficits

b) Ipsilateral hemiparesis

c) Contralateral hemiparesis

d) Contralateral Horner's syndrome with miosis and ptosis

e) Ipsilateral hypoglossal nerve palsy

Lecture #04 Cranial Nerves

Question 2: Where are the special sensory cranial nerve nuclei located?

a) Caudal diencephalon and rostral midbrain

b) Caudal medulla and rostral spinal cord

c) Caudal pons and rostral medulla

d) Caudal midbrain and rostral pons

e) Midbrain tectum

Lecture #04 Cranial Nerves

Question 3: Where are the cell bodies of third order neurons of cranial nerves?

a) Infranuclear

b) Cranial nerve sensory nuclei

c) Sensory ganglia

d) Cranial nerve motor nuclei

e) Thalamus

Lecture #04 Cranial Nerves

Question 4: A 65 year old man has been experiencing progressive weakness of movements of the eyes and tongue. What cranial nerve cell column is he suffering from strokes to?

a) Somatic motor

b) Special sensory

c) Parasympathetic

d) Somatic sensory

e) Pharyngeal motor

Lecture #04 Cranial Nerves

Question 5: To which cranial nerve component (column) do axons conveying hearing and balance belong?

a) Special somatic sensory

b) Special visceral sensory

c) Pharyngeal sensory

d) Somatic sensory

e) Visceral sensory

Lecture #04 Cranial Nerves

Question 6: Which is the cranial nerve component (column) of the hypoglossal nerve?

a) Somatic sensory

b) Visceral motor

c) Somatic motor

d) Special motor

e) Pharyngeal motor

Lecture #04 Cranial Nerves

Question 7: Where are corticobulbar axons located?

a) Lateral corticospinal tract

b) Posterior limb of internal capsule

c) Genu of internal capsule

d) Medial corticospinal tract

e) Anterior limb of internal capsule

Lecture #04 Cranial Nerves

Question 8: Which syndrome includes ipsilateral loss of the gag reflex?

a) Medial midbrain

b) Lateral medullary

c) Ventral midbrain

d) Medial medullary

e) Dorsal midbrain

Lecture #04 Cranial Nerves

Question 9: Which deficits will result from a stroke in the internal capsule that spares only the anterior limb?

a) Contralateral hemiparesis and contralateral lower facial paralysis

b) Ipsilateral hemiparesis without facial paralysis

c) Cognitive deficits and emotional lability

d) Anterograde amnesia and emotional lability

e) No clinically deficits upon routine testing

Lecture #04 Cranial Nerves

Question 10: What does the sulcus limitans divide?

a) Spinal cord from medulla

b) Sensory from motor nuclei

c) Visceral from pharyngeal nuclei

d) Somatic from pharyngeal nuclei

e) Open from closed medulla

Lecture #04 Cranial Nerves

Question 11: Which is clinically the most obvious exception to the bilateral projection of cranial nerve upper motor neurons?

a) Mesencephalic nerve

b) Trigeminal nerve

c) Facial nerve

d) Hypoglossal nerve

e) Ambiguus nerve

Lecture #04 Cranial Nerves

Question 12: A research subject is suspected of having a stroke. When he is asked to protrude his tongue, it deviates to the left. Where is the stroke?

a) Right medial medullary syndrome

b) Right lateral medullary syndrome

c) Left medial medullary syndrome

d) Left lateral medullary syndrome

e) Left genu of the internal capsule

Lecture #04 Cranial Nerves

Question 13: Which is a list of only parasympathetic visceral motor nuclei?

a) Intermediolateral cell column, Edinger-Westphal, superior salivatory

b) Intermediolateral cell column, Edinger-Westphal, inferior salivatory

c) Trochlear, Horner's, superior and inferior salivatory

d) Trochlear, Intermediolateral cell column

e) Edinger-Westphal, inferior and superior salivatory, dorsal motor nucleus of vagus

Lecture #04 Cranial Nerves

Question 14: Taste fibers that travel in the facial, glossopharyngeal, and vagus nerves project to which brainstem area?

a) Chief (or main, or principal) sensory nucleus

b) Caudal solitary nucleus

c) Anterior perforated substance

d) Olfactory tubercle

e) Rostral solitary nucleus

Lecture #04 Cranial Nerves

Question 15: An occlusion of the posterior inferior cerebellar artery likely causes which brainstem-related deficit?

a) Contralateral facial paralysis of lower face only

b) Contralateral facial paralysis

c) Contralateral loss of body pain and temperature sense

d) Ipsilateral body paralysis

e) Contralateral Horner's syndrome with miosis and ptosis

Lecture #04 Cranial Nerves

Question 16: To which cranial nerve component (column) do axons of the trochlear nerve belong?

a) Somatic motor

b) Pharyngeal motor

c) Special visceral motor

d) Pharyngeal sensory

e) Visceral motor

Lecture #04 Cranial Nerves

Question 17: A stroke of the right corticobulbar tract in the genu of the internal capsule will result in which?

a) Only paralysis of the right lower face

b) Only paralysis of the left lower face

c) No paralysis because the left corticobulbar fibers end bilaterally in motor nuclei of the brainstem

d) Complete paralysis of the right side of the face

e) Complete paralysis of the right side of the face

Lecture #04 Cranial Nerves

Question 18: A 65 year old man presents with a history of progressive weakness of the muscles of mastication, some difficulty in swallowing accompanied by rather raspy speech, difficulty in speaking and weakness of facial expression. What cranial nerve cell column is he suffering from lesions to?

a) Somatic sensory

b) Special sensory

c) Somatic motor

d) Pharyngeal (Branchial) motor

e) Parasympathetic

Lecture #04 Cranial Nerves

Question 19: Which cranial nerves carry special visceral sensory fibers?

a) Optic, vestibulocochlear

b) Olfactory, facial, glossopharyngeal, vagus

c) Glossopharyngeal, vagus, hypoglossal

d) Glossopharyngeal, vagus, accessory, hypoglossal

e) Oculomotor, trochlear, abducens

Lecture #04 Cranial Nerves

Question 20: An upper motor neuron (supranuclear) lesion of the facial nerve is produced by interrupting the corticobulbar fibers to the facial motor nucleus. Such a lesion on the left side of the brain will produce which?

a) Complete paralysis of the left side of the face

b) Only paralysis of the right lower face

c) Only paralysis of the left lower face

d) Complete paralysis of the right side of the face

e) No paralysis at all because the corticobulbar fibers are crossed and uncrossed

Lecture #04 Cranial Nerves

Question 21: A patient is diagnosed with a right medial medullary syndrome. What cranial nerve signs would you expect to see in this patient?

a) Left facial paralysis

b) Right tongue atrophy

c) Right facial paralysis

d) Left lower facial paralysis

e) Left tongue atrophy