

FOR QUESTIONS 1 THROUGH 50 SELECT THE SINGLE BEST ANSWER

1. Which of the following areas/structures is NOT correctly paired with its sensory innervation?
 - A. skin of forehead – ophthalmic division of CN V
 - ☒ B. skin anterior to the external auditory meatus and posterior temple – mandibular division of CN V
 - C. cornea – maxillary division of CN V
 - D. palate – maxillary division of CN V

2. A tumor of the parotid gland would be LEAST LIKELY to cause...
 - ☒ A. hyperacusis.
 - B. loss of nasolabial and forehead skin wrinkling.
 - C. eversion of the lower eyelid and tearing onto cheek.
 - D. food from becoming lodged between cheek and mandibular teeth.

3. Blood traveling from the cavernous sinus to the internal jugular vein could traverse all of the following dural venous sinuses EXCEPT the...
 - ☒ A. straight
 - B. superior petrosal
 - C. inferior petrosal
 - D. sigmoid

4. Which of the following structures is CORRECTLY paired with the opening through which it exits/enters the cranial cavity?
 - A. middle meningeal artery – foramen ovale
 - ☒ B. ophthalmic division of trigeminal nerve – superior orbital fissure
 - C. glossopharyngeal nerve – internal auditory meatus
 - ☒ D. ophthalmic artery – superior orbital fissure

5. Which of the following deficits will NOT occur when the facial nerve is lesioned immediately distal to its genu in the facial canal?
 - A. loss of secretomotor innervation to the submandibular and sublingual glands
 - B. hyperacusis
 - C. loss of innervation to muscles of facial expression
 - ☒ D. loss of secretomotor innervation to the lacrimal gland

6. A tumor that erodes through the medial wall of the middle ear cavity is **MOST LIKELY** to encroach on the...
- A. temporal lobe of the brain
 - B. carotid canal
 - C. mastoid air cells
 - ☒ D. cochlea
7. An aneurysm of the internal carotid artery in the cavernous sinus would be **LEAST LIKELY** to affect the...
- A. adducens nerve
 - B. ophthalmic division of V
 - C. oculomotor nerve
 - ☒ D. mandibular division of V
8. A patient presents with a partial lower Horner's syndrome including loss of sweat gland function and flushing (vasodilation) to the region of the face below the eye. Pupillary function is normal and the patient does not display ptosis (a drooping upper eyelid). The most likely location of the lesion of sympathetic nerves would be...
- ☒ A. along the internal carotid artery.
 - B. at the superior cervical ganglion.
 - C. at the level of the spinal cord (C8-T1).
 - ☒ D. along the facial artery.
9. A patient presents with a dilated pupil that does not constrict when shining a light into the affected eye (pupillary light reflex). In addition, there is an inability to focus on close objects (loss of accommodation). These findings could be caused by a lesion involving any of the following structures **EXCEPT** the...
- A. short ciliary nerves. *loss of parasymp*
 - ☒ B. ciliary ganglion.
 - ☒ C. long ciliary nerves. *symp*
 - ☒ D. oculomotor nerve.
10. Depression, abduction and intorsion of the eye are all functions of which extraocular muscle?
- A. inferior oblique
 - B. inferior rectus
 - ☒ C. superior oblique
 - D. superior rectus

SR IO Ad
IR SO Ab
In

11. Asking your patient to forcibly close his/her eyes is a good test for integrity of which branch of the facial nerve?
- A. buccal
 - B. temporal
 - ☒ C. zygomatic
 - D. mandibular (marginal)
12. The autonomic nervous system is the part of the peripheral nervous system that is motor to all of the following **EXCEPT**...
- A. cardiac muscle.
 - ☒ B. skeletal muscle.
 - C. glands.
 - D. smooth muscle.
13. Which of the following cranial nerves does **NOT** contain parasympathetic preganglionic nerve fibers?
- A. glossopharyngeal - *Parasympathetic*
 - B. facial - *Lacrimal*
 - ☒ C. oculomotor
 - ☒ D. trigeminal -
14. Which of the following statements concerning the autonomic nervous system is **CORRECT**?
- ☒ A. All spinal nerves have gray and white communicating rami.
 - B. Sympathetic postganglionic terminals are cholinergic (acetylcholine) and parasympathetic postganglionic terminals are adrenergic (norepinephrine).
 - ☒ C. Sympathetic preganglionic cell bodies are found in spinal cord segments T1-L2.
 - D. In general, parasympathetic postganglionic fibers are longer than sympathetic postganglionic fibers.
15. Which of the following veins is considered an emissary vein?
- A. facial
 - B. internal jugular
 - ☒ C. ophthalmic vein (superior or inferior)
 - D. retromandibular

16. The chorda tympani nerve...
- ☒ A. contains taste fibers from the posterior one-third of the tongue.
 - ☐ B. courses through the middle ear cavity between the malleus and incus.
 - ☐ C. travels through the pterygoid canal.
 - ☐ D. contains parasympathetic secretomotor fibers that innervate the parotid gland.
17. Which of the following statements concerning the middle ear cavity is **NOT** correct?
- ☐ A. It communicates with the mastoid air cells.
 - ☐ B. It is located in the petrous part of the temporal bone
 - ☒ C. It receives sensory innervation from a branch of the facial nerve
 - ☐ D. It communicates with the nasopharynx via the Eustachian (auditory) tube.
18. Failure of the lateral palatine processes to properly fuse with the intermaxillary segment during embryonic development would produce a newborn with a...
- ☐ A. cleft jaw.
 - ☐ B. posterior cleft palate.
 - ☐ C. cleft lip.
 - ☒ D. anterior cleft palate.
19. Which of the following structures does not develop from the intermaxillary segment?
- ☐ A. Philtrum of upper lip
 - ☒ B. Nasal septum
 - ☐ C. Medial portion of upper jaw (premaxilla)
 - ☐ D. primary hard palate
20. Which of the following is a complex of congenital malformations that includes total or partial agenesis of the thymus and parathyroid glands?
- ☐ A. Treacher-Collins syndrome
 - ☐ B. Bell's palsy
 - ☒ C. DiGeorge syndrome
 - ☐ D. Pierre Robin syndrome
21. Which of the following congenital malformations is typically found along the anterior border of the sternocleidomastoid muscle?
- ☒ A. External branchial fistulas
 - ☐ B. Thyroglossal cysts
 - ☐ C. Thyroglossal fistulas
 - ☐ D. Aberrant thyroid tissue

22. Taste buds that develop in the anterior 2/3 of the tongue are derived from the ...
- A. 1st pharyngeal arch. ⁵
 - ☒ B. 2nd pharyngeal arch. ^{7 -}
 - C. 3rd pharyngeal arch. ⁹
 - D. 4th pharyngeal arch. ¹⁰
23. Which of the following muscles is **NOT** utilized in lateral excursion (deviation) of the jaw (chin) to the left side?
- A. Left Masseter
 - B. Right Lateral Pterygoid
 - C. Left Temporalis
 - ☒ D. Left Lateral Pterygoid
24. A basal skull fracture involving the right foramen ovale could produce all of the following neurological symptoms **EXCEPT** ? ^{1/3}
- A. Diminished sensation on right side of tongue.
 - B. Hyperacusis.
 - ☒ C. Uvula deviates to ^{left} right when patient says ahh.
 - D. Diminished sensation in skin on right side of lower jaw.
25. Which of the following is **NOT** a branch of the maxillary artery?
- A. middle menigeal artery
 - ~~B.~~ posterior superior alveolar artery
 - ☒ C. superficial temporal artery
 - D. inferior alveolar artery
26. In a patient whose mandible is in a closed-lock position the...
- ~~A.~~ condyle is trapped anterior to the articular eminence.
 - ☒ B. articular disc is trapped anterior to the articular eminence.
 - ☒ C. articular disc is trapped in the mandibular fossa.
 - ~~D.~~ condyle and the articular disc are trapped anterior to the articular eminence.

27. In a normal TMJ, which of the following does **NOT** occur during jaw opening?
- ☒ A. Rotation at the condyle is limited by the temporomandibular ligament ligament and parotid gland.
 - ☐ B. The condyle engages the intermediate zone of the disc.
 - ☐ C. The axis of rotation shifts from the condyle to the mandibular foramen.
 - ☒ D. The disc remains stationary while the condyle continues translation movement in the anterior-inferior direction.
28. Medial displacement of the palatine tonsil could be caused by a space taking lesion (ie. infectious abscess) located in the...
- ☒ A. masticator space.
 - ☐ B. sublingual space.
 - ☐ C. submandibular space.
 - ☐ D. retropharyngeal space.
29. A patient with a **medially** eroding periapical abscess of his right, mandibular **molar** presented with swelling on his neck just beneath the chin and body of the mandible. The infection most likely has expanded into the...
- ☐ A. parapharyngeal space.
 - ☐ B. sublingual space.
 - ☒ C. submandibular space.
 - ☐ D. retropharyngeal space.
30. An infection in the parapharyngeal space can easily spread into all of the following fascial spaces **EXCEPT** the...
- ☒ A. masticator space.
 - ☐ B. sublingual space.
 - ☐ C. submandibular space.
 - ☐ D. retropharyngeal space.
31. A patient with a severe throat infection which developed a few days earlier now has a high temperature and considerable difficulty swallowing because the posterior wall of the oropharynx is bulging anteriorly. The infection most likely has expanded into the...
- ☐ A. parapharyngeal space.
 - ☐ B. sublingual space.
 - ☐ C. submandibular space.
 - ☒ D. retropharyngeal space.

32. To anesthetize only the left mandibular premolars, canine and incisor teeth, anesthetic solution would have to be deposited at the opening for the...
- ☐ A. left infraorbital foramen.
 - ☐ B. left mandibular foramen.
 - ☒ C. left mental foramen.
 - ☐ D. incisive foramen.
33. To anesthetize the buccal gingiva, lingual gingiva and pulp of the upper right lateral incisor, canine and 1st premolar teeth, anesthetic solution would have to be deposited at all of the following sites **EXCEPT** the...
- ☐ A. right infraorbital foramen.
 - ☐ B. incisive foramen.
 - ☒ C. right posterior superior alveolar foramen. *molars*
 - ☐ D. right greater palatine foramen.
34. When performing a standard inferior alveolar nerve block injection, which of the following does **NOT** correctly describe the path of the needle?
- ☒ A. medial to the pterygomanibular raphe
 - ☐ B. lateral to the lingual nerve
 - ☐ C. medial to the ramus of the mandible
 - ☐ D. lateral to the medial pterygoid
35. A complete occlusion of the right subclavian artery at its origin would result in which of the following findings?
- Thyrocervical trunk
Vertebral*
- ☐ A. absence of blood flow in the superior thyroid artery
 - ☒ B. reduced blood flow to the brain - *Vertebral*
 - ☐ C. reduced blood flow to the tongue
 - ☐ D. absence of blood flow in facial artery
36. Your patient is having an acute respiratory distress incident caused by a dental crown lodged in the airway. In order to safely perform a laryngostomy, you must establish the location of the cricothyroid membrane (ligament). This membrane is generally located at which of the following vertebral levels?
- Thyroid C5?
Cricoid - C6*
- ☐ A. C2/C3
 - ☒ B. C5/C6
 - ☐ C. C6/C7
 - ☐ D. C3/C4

37. Which of the following pairings of paranasal sinuses with the spaces they drain into is **NOT** correct?
- A. frontal – middle meatus
 - ☒ B. sphenoid – pharyngeal recess
 - C. maxillary – middle meatus
 - D. posterior ethmoid air cells – superior meatus
38. A tumor in the foramen rotundum would **MOST LIKELY** affect which of the following nerves?
- V₂ Maxillary*
- A. greater petrosal
 - B. inferior alveolar
 - ☒ C. greater palatine
 - D. Glossopharyngeal
39. An infection in the maxillary sinus that erodes through its posterior wall could affect which of the following nerves?
- Pterygopalatine*
- A. ophthalmic (V1)
 - ☒ B. posterior superior alveolar
 - ☒ C. greater petrosal
 - D. optic
40. A lesion of the long buccal nerve could result in loss of innervation to which of the following structures?
- ☒ A. buccal gingiva of mandibular molars
 - B. lingual gingiva of maxillary molars
 - C. buccal gingiva of maxillary molars
 - D. lingual gingiva of mandibular molars
41. When asked to protrude her tongue during a physical examination, your patient's tongue deviates to the left. Which of the following nerves is probably damaged?
- A. right lingual
 - B. left glossopharyngeal
 - ☒ C. left hypoglossal
 - D. right hypoglossal

42. A lesion of the glossopharyngeal nerve at the jugular foramen could result in...
- ☒ A. an absent gag reflex on the side of the lesion.
 - ☐ B. reduced taste sensation from the anterior 2/3 of the tongue.
 - ☐ C. reduced general sensation from the anterior 2/3 of the tongue.
 - ☐ D. paralysis of the palatopharyngeus muscle on the side of the lesion.
43. Which of the following muscle – innervation pairings is **NOT** correct?
- ☒ A. stylopharyngeous – vagus nerve
 - ☐ B. levator veli palatini – vagus nerve
 - ☐ C. styloglossus – hypoglossal nerve
 - ☐ D. cricothyroid – external branch of the superior laryngeal nerve
44. A lesion to the internal branch of the superior laryngeal nerve would result in ...
- ☒ A. reduced sensory innervation to the supraglottic mucosa of the larynx.
 - ☐ B. inability to tense the vocal cord of the same side as the lesion.
 - ☐ C. inability to abduct the vocal cord on the same side as the lesion.
 - ☐ D. reduced sensory innervation to the infraglottic mucosa of the larynx.
45. Which of the following muscles abducts the true vocal cords?
- ☐ A. cricothyroid
 - ☐ B. arytenoids
 - ☒ C. posterior cricoarytenoid
 - ☐ D. thyroarytenoid
46. Lymphatic drainage from the medial part of the anterior 2/3 of the tongue goes directly to the ...
- ☐ A. submandibular nodes.
 - ☐ B. retropharyngeal nodes.
 - ☐ C. superficial cervical nodes.
 - ☒ D. deep cervical nodes.
47. Which of the following pairs of structures and their innervation is **NOT** correct?
- ☐ A. gingiva over the premaxillary part of the palate – nasopalatine nerve
 - ☐ B. buccolabial gingiva from the mandibular second premolar forward to the midline – inferior alveolar nerve
 - ☒ C. maxillary molar teeth – posterior superior alveolar nerve
 - ☒ D. buccolabial gingiva from the maxillary second premolar forward to the midline – long buccal nerve

48. Which of the following structures would be **LEAST LIKELY** to be affected by an infection in the floor of the mouth just posterior to the apices of the roots of the mandibular incisor teeth?
- A. sublingual gland
 - B. lingual nerve
 - ☒ C. hypoglossal nerve
 - D. inferior alveolar nerve
49. If a fragment of a chicken or fish bone were to become lodged in the floor of the piriform recess, which structure could be at risk of damage?
- ☐ A. glossopharyngeal nerve
 - B. cricothyroid muscle
 - ☒ C. internal branch of the superior laryngeal nerve
 - D. sympathetics to the pharyngeal plexus
50. Your patient is a soprano with the Atlanta Opera Company who recently had her diseased thyroid gland surgically removed. She complains that she can no longer sing high notes like she could before the surgery. Which of the following muscles is not functioning properly?
- A. thyroarytenoid
 - B. posterior cricoarytenoid
 - C. lateral cricoarytenoid
 - ☒ D. cricothyroid

END OF QUESTIONS