

Key

**Human Anatomy
Dentistry 101
Exam II
October 19, 2005**

Mark the letter of the most correct answer on your scantron sheet (20 points):

1. All of the following cranial nerves have branches which provide sensory innervation for the tympanic membrane, Except ?

- a. Trigeminal
- b. Facial
- c. Glossopharyngeal
- d. Vagus
- e. Vestibulocochlear

2. The Frontalis muscle is a skeletal muscle of the forehead innervated by the facial nerve . What type of nerve components provide this innervation ?

- a. GSE
- b. GVE
- c. GSA
- d. SVE
- e. SSA

3. What role does the tympanic membrane, ear ossicles and oval window play in the process of hearing ?

- a. strictly the transmission of sound
- b. to protect the cochlear apparatus
- c. the recognition of specific sounds
- d. the transmission and amplification of sound
- e. support the semicircular canals

4. The post ganglionic cell bodies of the greater petrosal branch of VII are found in which ganglion ?

- a. ciliary
- b. geniculate
- c. superior cervical
- d. pterygopalatine
- e. trigeminal

Name _____

5. The facial nerve as it **leaves** the stylomastoid foramen contains what type of functional nerve components ?

- a. GSA & GVE
- b. SVA & GSA
- c. GVE, SVA, SVE, GSA
- d. SVE & GSA
- e. GSA only

6. Stenson's (Parotid) Duct pierces which muscle to enter the oral cavity ?

- a. masseter
- b. levator labii superioris
- c. temporalis
- d. buccinator
- e. levator labii superioris

7. The Lateral Pterygoid muscle has which of the following actions ?

- 1. Movement of mandible to opposite side
- 2. Elevation of the mandible
- 3. Protrusion of the mandible
- 4. Retrusion of the mandible

- a. 1, 2, & 3
- b. 1 & 3
- c. 2 & 4
- d. 4 only

8.. All of the following cranial nerves contain GSE components, except ?

- a. III
- b. IV
- c. VII
- d. VI
- e. XII

Name _____

9. The frontalis muscle is innervated by which specific nerve ?
- a. cervical branch of the facial
 - b. auriculotemporal branch of the trigeminal
 - c. spinal accessory
 - d. cervical spinal nerves
 - e. temporal branch of the facial
10. All of the following are branches of the facial nerve, except ?
- a. greater petrosal
 - b. chorda tympani
 - c. mandibular
 - d. auriculotemporal
 - e. zygomatic
11. The spinal accessory nerve enters the cranial vault through which opening ?
- a. jugular foramen
 - b. foramen magnum
 - c. carotid foramen
 - d. foramen ovale
 - e. foramen spinosum
12. Which muscle inserts on the anterior border of the (cartilaginous) articular disk ?
- a. superior belly of the lateral pterygoid
 - b. inferior belly of the lateral pterygoid
 - c. medial pterygoid
 - d. temporalis
 - e. masseter

Name _____

13. All of the following muscles are innervated by cranial nerves with SVE components, Except ?

- a). Temporalis
- b) Orbicularis Oris
- c) Platysma
- d) Medial Pterygoid
- e) Lateral Rectus

14. A patient presents with jaw pain and inability to close his mouth. You notice that his mouth is in an open position and the mandible is protruded (forward) and is deviated to the left. Which muscle is probably in spasm (contracted)?

- a. right temporalis
- b. the right lateral pterygoid
- c. the left medial pterygoid
- d. the left lateral pterygoid
- e. the right masseter

15. All of the following areas consist of, or are covered by, fibrocartilage, Except ?

- a. the head of the mandibular condyle
- b. the articular tubercle
- c. the articular eminence
- d. the articular disk

16. The ophthalmic artery is a direct branch of ?

- a. External carotid
- b. Internal carotid
- c. Maxillary
- d. Middle meningeal
- e. middle cerebral

Name _____

17. The only cranial nerve which arises from the posterior surface of the brainstem ?

- a. oculomotor
- b. trochlear
- c. trigeminal
- d. abducent
- e. facial

18. The chordatympanic branch of the facial nerve leaves the skull through ?

- a. petrotympanic fissure
- b. hiatus of the facial canal
- c. internal acoustic foramen
- d. stylomastoid foramen
- e. external acoustic meatus

19. The Frontalis muscle and the occipitalis muscle are attached to each other by ?

- a. sphenomandibular ligament
- b. periorbital dura
- c. galea aponeurotica
- d. periosteal dura
- e. tentorium cerebelli

20. A 50 year old male patient presents to his physician with intense pain at the bridge of his nose. Examination of this area indicates an acute case of herpes zoster. Which of the following cutaneous branches of the ophthalmic nerve is involved ?

- a. external nasal
- b. lacrimal
- c. supraorbital
- d. supratrochlear
- e. zygomaticofacial

Name _____

21. A young woman with decreased lacrimation (tearing) in her right eye has a corneal inflammation. Parasympathetic nerve fibers which supply the lacrimal gland arise from which of the following cranial nerves ?
- a. Oculomotor
 - b. Trigeminal
 - c. Facial
 - d. Vagus
 - e. Abducens
22. The opening in the temporal bone which transmits the greater petrosal nerve is called ?
- a. petrotympanic fissure
 - b. foramen lacerum
 - c. foramen spinosum
 - d. facial hiatus
 - e. stylomastoid foramen
23. After a hard blow to the face a patient was left with a black eye on the right and inability to look downward with the right eye. A radiograph (x-ray) reveals a compound fracture of the right orbital floor. Which muscle may be trapped when the patient tries to look downward ?
- a. inferior oblique
 - b. inferior rectus
 - c. medial rectus
 - d. lateral rectus
 - e. levator palpebre
24. The sensory fibers which innervate the sclera of the eye including the cornea are supplied by which nerve branch ?
- a. frontal
 - b. lacrimal
 - c. nasociliary
 - d. oculomotor
 - e. optic

Name _____

25. A potential complication of Mastoiditis (inflammation of the mastoid air cells) is facial nerve paralysis. A patient with this type of facial nerve lesion should still be able to perform which of the following movements ?
- a. close eyelids
 - b. close lips together
 - c. frown
 - d. elevate the upper eyelid
 - e. smile
26. Which of the following openings is a communication between the infratemporal fossa and the pterygopalatine fossa ?
- a. foramen lacerum
 - b. foramen ovale
 - c. sphenopalatine foramen
 - d. pterygomaxillary fissure
 - e. inferior orbital fissure
27. Which dural reflection (fold) separates left & right cerebral cortical hemispheres from the cerebellum ?
- a. falx cerebri
 - b. diaphragma sella
 - c. falx cerebelli
 - d. tentorium cerebelli
 - e. transverse sinus
28. The outer surface of the dura mater facing the skull is specifically called
- a. pia mater
 - b. periosteal dura
 - c. arachnoid mater
 - d. tectum
 - e. endosteal dura

Name _____

29. Which structure demarcates the position of frontal lobe of the cerebral cortex from its parietal lobe ?
- a. the precentral gyrus
 - b. the lateral (Sylvian) fissure
 - c. the parietooccipital sulcus
 - d. the central sulcus
 - e. the post central gyrus
30. The trigeminal nerve trunk arises from which region of the brainstem ?
- a. thalamus
 - b. midbrain
 - c. pons
 - d. medulla
 - e. hypothalamus
31. All of the following bones of the skull are part of the neurocranium, Except ?
- a. occipital
 - b. parietal
 - c. sphenoid
 - d. frontal
 - e. maxilla
32. Which of the following structures **does not** pass through the superior orbital fissure ?
- a. ophthalmic branch of the trigeminal nerve
 - b. abducent nerve
 - c. oculomotor nerve
 - d. ophthalmic vein
 - e. ophthalmic artery
33. The insular lobe of the cerebral cortex is referred to as ?
- a. the primary motor cortex
 - b. the somatosensory cortex
 - c. the emotional cortex
 - d. the visual cortex
 - e. the hypophysis

Name _____

34. The foramen ovale, rotundum and spinosum are all found in which bone ?

- a. frontal
- b. sphenoid
- c. temporal
- d. occipital
- e. ethmoid

35. An imaginary axis through the lateral and medial poles of the left and right mandibular condyles would intersect on which specific point on the skull ?

- a. glabella
- b. sella turcica
- c. occipital condyles
- d. basion point (just anterior to foramen magnum)
- e. external acoustic meatus

36. Which of the following nerves helps to carry postganglionic parasympathetic fibers to the lacrimal gland into the orbit ?

- a. supraorbital nerve
- b. deep petrosal nerve
- c. zygomatic branch of the maxillary nerve
- d. chorda tympani
- e. oculomotor nerve

37. Which of the following is only an action of the temporalis muscle ?

- a. elevate the mandible
- b. protrude the mandible
- c. move the mandible to the opposite side
- d. retrude the mandible
- e. depress the mandible

Name _____

38. All of the following bones develop all or in part through the process of endochondral ossification, Except ?

- a. occipital
- b. sphenoid
- c. maxilla
- d. temporal
- e. mandible

39. The internal carotid artery gives off how many branches to the face before it enters the skull ?

- a. 0
- b. 1
- c. 2
- d. 4
- e. 6

40. The auriculotemporal branch of the mandibular division of the trigeminal nerve splits around what vessel before innervating the skin of the ear ?

- a. external carotid a.
- b. internal carotid a.
- c. maxillary a.
- d. middle meningeal a.
- e. retromandibular v.

Name _____

Write the correct answer in the space provided (15 points)

41. The ciliary muscles of the eye are innervated by which cranial nerve ?

_____ III (oculomotor) _____42. What specific type of nerve components does the does the zygomatic branch of V₂ carry as it passes into the orbit ?_____ GSA, GVE _____

43. The vertebral arteries are direct branches of which arteries ?

_____ Subclavian _____

44. Together the left and right parietal bones and the frontal bone merge to form what specific suture ?

_____ Coronal Suture (Accepted Bregma) _____

45. List 4 unpaired bones of the skull ?

_____ Vomer, Sphenoid, Ethmoid, Occipital, Frontal _____46. What structure(s) pass through the foramen lacerum from above ?_____ Greater Petrosal N (+ Deep Petrosal N.) _____47. Which cranial nerves have auricular branches which innervate the tympanic membrane ?_____ Facial (VII), Vagus (X) (Accepted V + IX) _____48. Name the direct branches of the ophthalmic branch of the trigeminal nerve._____ , Frontal, Nasociliary _____

49. Which cranial nerves passing through the jugular foramen have GVA components?

_____ XI (Glossopharyngeal), X (Vagus) _____

50. List the bones which make up the bony orbit

_____ Zygoma, Frontal, Sphenoid, Ethmoid, Lacrimal, Palatine
Maxilla _____

Name _____

51: (6 points) For the following ligaments of the gnathostomatic system describe the bony attachment points for each and explain what the specific function each ligament has.

Stylomandibular - Attaches from styloid process of temporal bone to posterior surface of A.S.G. of mandible. Limits downward & forward movement of mandible.

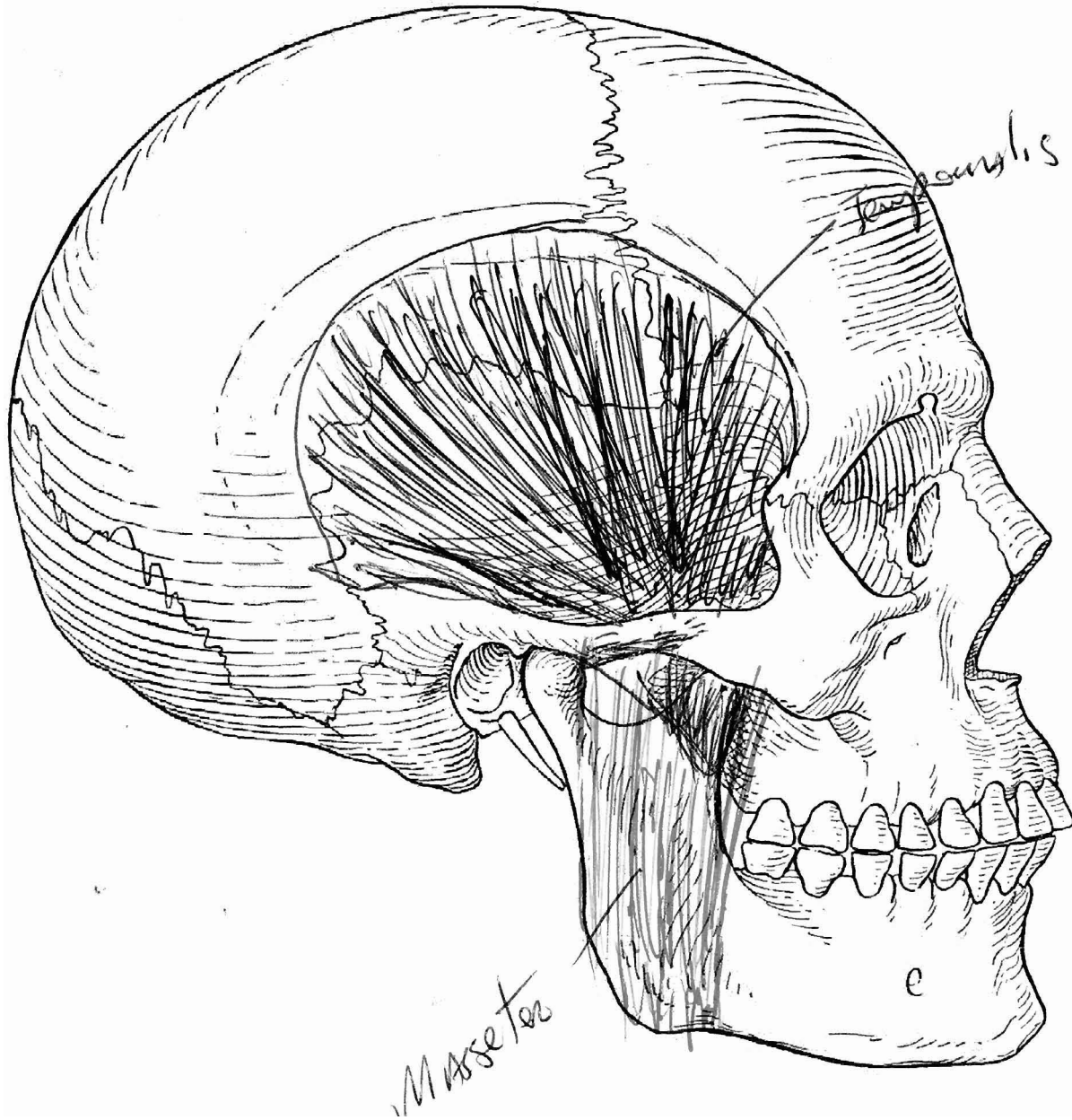
Sphenomandibular - Attaches from angular spine of the sphenoid bone to the lingula of the mandibular ramus. Limits downward and lateral movement of mandible.

Lateral Tempormandibular - Attaches from articular tubercle of temporal bone to the neck of the mandibular condyle. Limits downward & posterior movement of mandible.

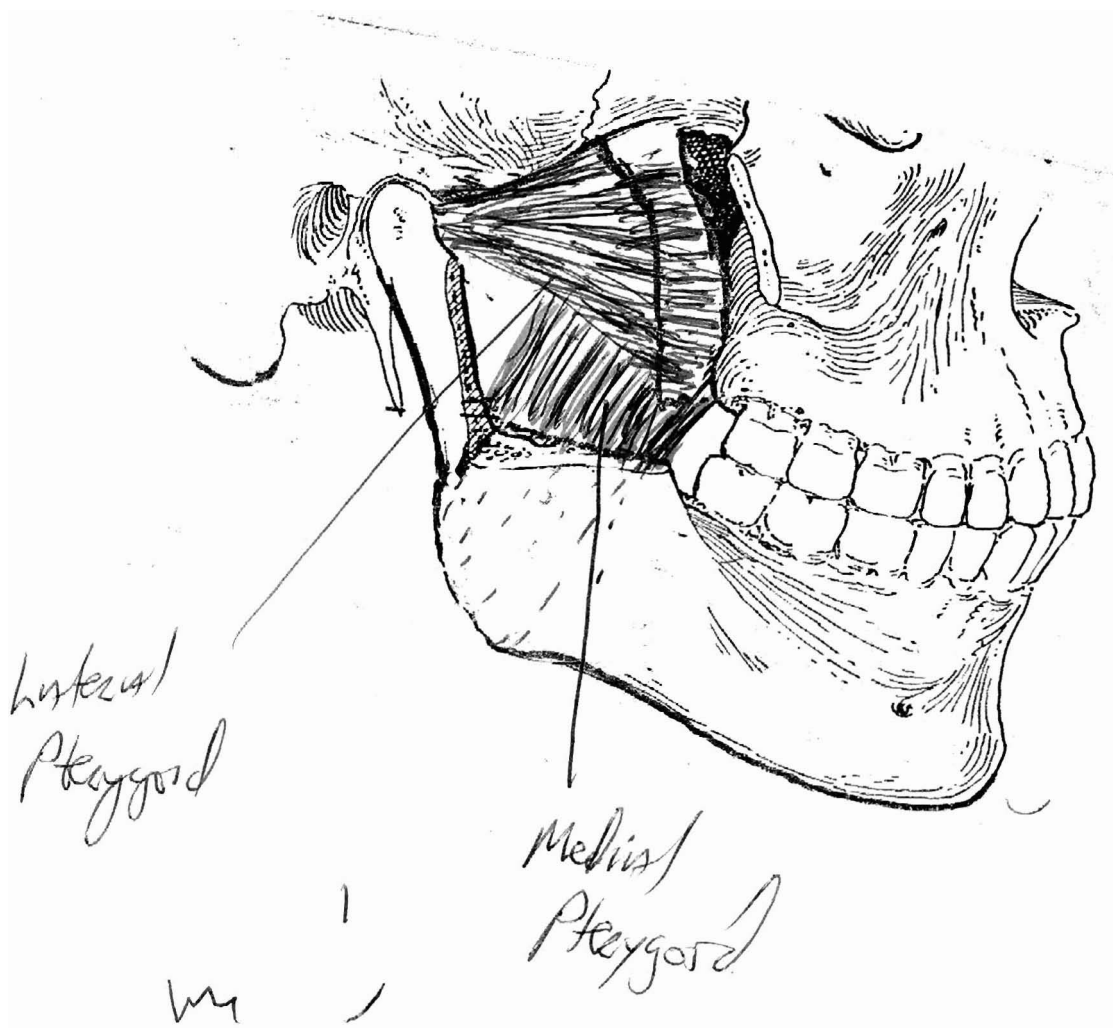
Collateral - Attaches between lateral & medial poles of the mandibular condylar head and the articular disk & capsule. Prevents separation of the articular disk from the mandibular condylar head.

Name _____

52. (4 points) For the diagram of the skull on this page and the next, draw in the muscles of Mastication from their point of origin to their point of insertion.



Name _____



Name _____

53) (5 points) The drawing below represents the pterygopalatine fossa space as viewed from the anterior looking posteriorly. Label the foramen on the diagram and describe at least one nerve branch which passes through these openings.

