

# NOTES IN ANATOMY



BERLIN



## TRIGEMINAL SYSTEM with MCQ

### LEC. 4



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1. **Regarding the sphenopalatine ganglion, select the correct one:**
  - A. Has the nerve of the pterygoid canal as a branch
  - B. Is attached to the maxillary nerve.
  - C. Gives off secretomotor fibers to the parotid gland.
  - D. Gives off the ciliary nerves.
  - E. Gives off the lesser petrosal nerve.
2. **The pterygopalatine ganglion:**
  - A. Supplies parasympathetic fibers to the parotid gland
  - B. Sympathetic nerves from the middle cervical ganglion passes through it
  - C. Is suspended from the maxillary nerve
  - D. Supplies the iris.
  - E. Is the site for relay of deep petrosal nerve
3. **Which of the following does NOT lie in the infratemporal fossa?**
  - A. Masseter muscle
  - B. Chorda tympani nerve
  - C. Pterygoid venous plexus
  - D. Mandibular nerve
  - E. Lingual nerve
4. **The nerve to pterygoid canal contains**
  - A. Post ganglionic parasympathetic fibers to sublingual gland
  - B. Preganglionic parasympathetic fibers to submandibular gland
  - C. Preganglionic sympathetic fibers to parotid gland
  - D. Preganglionic parasympathetic fibers to palatine glands
  - E. None of the above
5. **The auriculotemporal branch of the mandibular nerve**
  - A. Carries secretomotor fibers to submandibular gland
  - B. Carries sensation from medial aspect of tympanic membrane
  - C. Carries sensation from lateral aspect of the scalp
  - D. Appears at the anterior border of parotid gland
  - E. All of the above
6. **The otic ganglion is attached to:**
  - A. Glossopharyngeal nerve
  - B. Maxillary nerve
  - C. Hypoglossal nerve
  - D. Mandibular nerve
  - E. Vagus nerve
7. **The location of the otic ganglion is in the:**
  - A. Pterygopalatine fossa
  - B. Internal ear
  - C. Infratemporal fossa
  - D. Middle cranial fossa
  - E. Temporal fossa
8. **The infratemporal fossa:**
  - A. lies below the posterior cranial fossa
  - B. lies medial to ramus of the mandible
  - C. Contains the masseter muscle
  - D. Contains the greater part of the parotid gland

9. Which muscle is NOT supplied by the mandibular division of the trigeminal nerve?

- A. Anterior belly of digastric
- B. Stylohyoid
- C. Medial pterygoid
- D. Mylohyoid

10. The following are true about the mandibular division of the trigeminal nerve EXCEPT:

- A. It supplies the muscle of mastication.
- B. It arise from ganglion lies at the apex of the petrous bone.
- C. Emerges from the brain stem between the pons and the medulla.
- D. It has separate sensory and motor roots.
- E. Innervates all the teeth of the lower jaw

11. Which of the following is NOT a branch of the trigeminal nerve?

- A. Supraorbital nerve
- B. Great auricular nerve
- C. Mental nerve
- D. Lacrimal nerve
- E. Auriculotemporal nerve

12. The trigeminal nerve

- A. Has five divisions
- B. Mandibular division is purely sensory
- C. Has its motor nucleus in the pons
- D. Exits the skull entirely through the foramen ovale
- E. Does not carry autonomic nerves

13. One of the following is not a branch of the ophthalmic division of the trigeminal nerve

- A. Lacrimal nerve
- B. Infraorbital nerve
- C. Supraorbital nerve
- D. Infratrochlear nerve
- E. Supratrochlear nerve

14. Which of the following is a branch of the mandibular nerve

- A. Infraorbital nerve
- B. External nasal nerve
- C. Zygomaticofacial nerve
- D. Auriculotemporal nerve
- E. Zygomaticotemporal nerve

15. The maxillary nerve supplies

- A. Skin of the upper eyelid
- B. Skin of the medial angle of the eye
- C. Skin of the upper lip
- D. Skin of the forehead
- E. Skin at the tip of the nose

**16. Which of the following is/are branch(es) of the nasociliary nerve?**

- A. Supratrochlear nerve
- B. Lacrimal nerve
- C. Long ciliary nerves
- D. Infraorbital nerve
- E. All of the above

**17. The nasocilliary nerve**

- A. Arises from the maxillary nerve
- B. Terminates as the infratrochlear and supratrochlear nerves.
- C. Supplies the Maxillary sinus.
- D. The branch to the ciliary ganglion arises as the nerve crosses the optic nerve.
- E. Lies above the annulus of Zinn (tendinous ring).

**18. The nasociliary nerve**

- A. Gives off supratrochlear nerve which innervates the medial forehead.
- B. It supplies the lateral part of the upper eye lid.
- C. Innervates the cornea.
- D. Carries within it the preganglionic sympathetic fibers from the internal carotid plexus.
- E. Gives short ciliary nerves.

**19. Lacrimal gland receives its secretomotor nerve supply from:**

- A. Chorda tympani nerve
- B. Nasociliary nerve
- C. Greater petrosal nerve
- D. Auriculotemporal nerve

**20. Following is the parasympathetic root for pterygopalatine ganglion:**

- A. Chorda tympani nerve
- B. Deep petrosal nerve
- C. Greater petrosal nerve
- D. Lesser petrosal nerve

**21. Submandibular salivary gland receives its secretomotor nerve supply via:**

- A. Greater petrosal nerve
- B. Lesser petrosal nerve
- C. Nasociliary nerve
- D. Chorda tympani nerve

**22. The long ciliary nerve**

- A. Is a branch of the supraorbital nerve
- B. Contains postganglionic sympathetic nerve fibers.
- C. Contains parasympathetic nerve fibers
- D. Synapse at the ciliary ganglion
- E. Contains sensory fibers from the upper eye lid.

**23. The ciliary ganglion**

- A. It lies lateral to lacrimal nerve
- B. It is sympathetic ganglion
- C. Its branches are purely postganglionic parasympathetic fibers
- D. Has branches that supply the lacrimal gland
- E. It is suspended to nasociliary nerve

**24. The parasympathetic fibers of the pterygopalatine ganglion supply.....:**

- A. Muscles of the iris
- B. Parotid gland
- C. Lacrimal gland
- D. Submandibular gland
- E. Sublingual gland

**25. The parasympathetic fibers of the otic ganglion supply .....**

- A. Muscles of the iris
- B. Parotid gland
- C. Lacrimal gland
- D. Submandibular gland

**26. Branches of the maxillary division of the trigeminal nerve include**

- A. The buccal nerve
- B. The infraorbital nerve
- C. The anterior ethmoidal nerve
- D. The auriculotemporal nerve
- E. All of the above.

**27. The foramen rotundum transmits:**

- A. Middle meningeal artery
- B. Greater petrosal nerve
- C. Maxillary nerve
- D. Auriculotemporal nerve
- E. Chorda tympani nerve

**28. During preparation to extract the right maxillary (upper) canine tooth, the patient experiences numbness and paresthesia within the upper canine and neighboring teeth, as well as the skin of lower eyelid, cheek, lateral nose & upper lip. What nerve was blocked?**

- A. Anterior superior alveolar
- B. External nasal
- C. Infratrochlear
- D. Infraorbital
- E. Nasopalatine

**29. Parotid salivary gland receives its secretomotor supply by:**

- A. Greater petrosal nerve
- B. Lesser petrosal nerve
- C. Chorda tympani nerve
- D. Nasociliary nerve

**30. Following is true about mandibular nerve:**

- A. It gives motor branch as inferior alveolar nerve
- B. It bears pterygopalatine ganglion
- C. Its buccal branches supply buccinator muscle
- D. It has cranial nerve nucleus in pons

**31. The mandibular nerve leaves the cranium via the**

- A. Superior orbital fissure
- B. Inferior orbital fissure
- C. Foramen ovale
- D. Foramen rotundum
- E. Foramen spinosum

**32. Sensation (heat, cold, touch) of the gingiva of the hard palate is carried to the brain through**

- A. The nerve of the pterygoid canal
- B. Nerves in the greater palatine canals
- C. The nasociliary branch of ophthalmic N
- D. The greater superficial branch of the vagus N
- E. The lesser superficial petrosal nerve

**33. The deep petrosal nerve**

- A. Contains parasympathetic fibers from VII
- B. Carries preganglionic sympathetic fibers from sympathetic plexus on ICA
- C. Carries postganglionic parasympathetic fibers from cranial nerve IX
- D. Carries postganglionic sympathetic fibers from superior cervical ganglion

**34. Regarding the mandibular nerve, all the following are true EXCEPT:**

- A. It arises from the trigeminal ganglion.
- B. It has a motor root.
- C. It has anterior and posterior divisions.
- D. It gives a branch which pierces the otic ganglion.
- E. It carries parasympathetic supply to the parotid gland through a branch from its trunk.

**35. Concerning the mandibular nerve, all are true EXCEPT:**

- A. It is a mixed nerve.
- B. It is formed of two roots.
- C. It supplies the buccinator muscle.
- D. It supplies the dura mater of the middle cranial fossa.

**36. Regarding the maxillary nerve, all the following are true EXCEPT:**

- A. It passes through the foramen rotundum.
- B. It is attached to the pterygopalatine ganglion.
- C. It gives a meningeal branch.
- D. Nervus spinosus arises from its intracranial part.
- E. It supplies the upper teeth.

**37. Concerning the maxillary nerve, all are true EXCEPT:**

- A. Enters the orbit through the superior orbital fissure.
- B. Lies in the lateral wall of the cavernous sinus.
- C. Supplies the nasopharynx.
- D. Supplies the skin of the upper lip.
- E. Supplies the mucous membrane of the nasal cavity

**38. For the general features of the maxillary nerve, all are true EXCEPT:**

- A. It is pure sensory nerve arising from the trigeminal ganglion.
- B. It passes through foramen rotundum.
- C. It passes in the pterygopalatine fossa and infratemporal fossa.
- D. Finally, it passes through the Infraorbital groove.
- E. It is related to the otic parasympathetic ganglion.

**39. Choose the best statement concerning the pterygopalatine ganglion**

- A. it contains some sympathetic fibers from the lesser petrosal nerve
- B. All fibers entering or leaving the ganglion have synapses within the ganglion
- C. Some fibers of maxillary N pass through the ganglion without synapsing
- D. The pterygopalatine ganglion lies immediately posterior to the pterygoid process of the sphenoid bone

**40. Destruction of nerve cell bodies found in the pterygopalatine fossa would result in .....?**

- A. Constricted pupils
- B. Dilated pupils
- C. Dry eye
- D. Loss of taste in the anterior 2/3 of the tongue
- E. Dry mouth

**41. Lesser petrosal nerve carries preganglionic parasympathetic fibers to:**

- A. Genuiculate ganglion
- B. Otic ganglion
- C. Submandibular ganglion
- D. Ciliary ganglion

**42. A patient is unable to taste a piece of sugar placed on the anterior part of the tongue. Which cranial nerve is most likely to have a lesion?**

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

**43. chorda tympani contains which component before it joins lingual nerve?**

- A. Preganglionic sympathetic
- B. Postganglionic sympathetic
- C. Preganglionic parasympathetics
- D. Postganglionic parasympathetics
- E. Taste fibers to the posterior third of the tongue

**44. The sensory branch of the anterior division of the mandibular nerve is:**

- A. Meningeal nerve .
- B. Buccal nerve .
- C. Inferior alveolar nerve .
- D. Lingual nerve .
- E. Auriculotemporal nerve

**45. The two roots of the auriculotemporal nerve surround the :**

- A. Middle meningeal artery .
- B. Inferior alveolar artery .
- C. Buccal artery .
- D. Maxillary artery .

**46. Which nerve is NOT correctly matched with its distribution ?**

- A. Lingual nerve ... ..Sensation from the anterior two-thirds of the tongue
- B. Lingual nerve ... .. Sensation from floor of mouth and lingual gingivae
- C. Chorda tympani nerve ..... Taste fibers from anterior two-thirds of tongue
- D. Chorda tympani nerve ... Secretomotor fibers to submandibular and sublingual glands
- E. Chorda tympani nerve ... .. motor fibers to tensor tympani

**47. Which of the following is NOT an opening to the pterygopalatine fossa ?**

- A. Pterygomaxillary fissure
- B. Sphenopalatine foramen
- C. Inferior orbital fissure
- D. Foramen rotundum
- E. Foramen ovale

**48. A dermatomal herpes zoster inflammation over chin and lower lip. Which of the following nerves responsible for the transmission of the virus in this case?**

- A. Auriculotemporal
- B. Buccal
- C. Lesser petrosal
- D. Mental
- E. Infraorbital

**49. Pain over the area of midface. Which ganglion is the location of the neural cell bodies of the nerve mediating the pain?**

- A. Genuate
- B. Trigeminal (semilunar or Gasserian)
- C. Inferior glossopharyngeal
- D. Otic
- E. Pterygopalatine

**50. Rheumatoid arthritis of temporomandibular joint (TMJ) and severe ear pain. Which of the following nerves is most likely responsible for conducting the pain sensation?**

- A. Facial
- B. Auriculotemporal
- C. Lesser petrosal
- D. Vestibulocochlear
- E. Chorda tympani

## ANSWERS

1.	B
2.	C
3.	A
4.	D
5.	C
6.	D
7.	C
8.	B
9.	B
10.	C
11.	B
12.	C
13.	B
14.	D
15.	C
16.	C
17.	D
18.	C
19.	C
20.	C
21.	D
22.	B
23.	E
24.	C
25.	B

26	B
27	C
28	D
29	B
30	D
31	C
32	B
33	D
34	E
35	C
36	D
37	A
38	E
39	C
40	C
41	B
42	A
43	C
44	B
45	A
46	E
47	E
48	D
49	B
50	B