

Course No: MGDC 2203  
Course Title: Neuroanatomy  
Date: 30/05/2015  
No. of Questions: 4  
Time: 2 hours

University of Palestine



Final Exam  
Second Semester  
2014/2015  
Total Grade: 60

Instructor Name: Dr Eyad Hussein  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: \_\_\_\_\_

• **Answer all Questions:**

**Q1: Fill the answer in the space for the following statements: (10/5)**

1. Site and branches of the superior cervical sympathetic ganglion:

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2. Site, origin, parts and communication of the lateral ventricles:

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3. Branches and functions of the middle cerebral artery:

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4. Branches of the mandibular nerve:

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5. The branches of the hypoglossal nerve itself, C1 joining hypoglossal nerve and ansa cervicalis:

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**Q2: Write between the brackets in the column A the number of the suitable word in the column B: (5/10)**

A	B
1. ( ) Sternothyroid m.	a. Temporal nerve of VII.
2. ( ) Stylohyoid m.	b. Vagus nerve.
3. ( ) Lateral pterygoid m.	c. Posterior division of V3 nerve.
4. ( ) Geniohyoid m.	d. Marginal mandibular nerve of VII.
5. ( ) Stylopharyngeus m.	e. Buccal nerve of VII.
6. ( ) Anterior auricular m.	f. Ansa cervicalis.
7. ( ) Myelohyoid m.	g. Glossopharyngeal nerve.
8. ( ) Orbicularis oris m.	h. Zygomatic nerve of VII.
9. ( ) Depressor angular oris m.	i. C <sub>1</sub> joining hypoglossal nerve.
10.( ) Styloglossus m.	j. Anterior division of V3 nerve.
	k. Hypoglossal nerve itself.
	l. Posterior auricular nerve of VII.
	m. None of the above.

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**Q3: Put true (T) or false (F) between brackets: (15/5)**

**1. The recurrent laryngeal nerve:**

- A. ( ) It is a branch of the inferior ganglion of vagus nerve.
- B. ( ) It supplies the mucous membrane of larynx below the vocal cord.
- C. ( ) Closely related to lateral surface of the thyroid gland.
- D. ( ) Right recurrent laryngeal nerve arises from the vagus nerve in front of the first part of subclavian artery.
- E. ( ) It supplies the cricoarytenoid muscle.
- F. ( ) It is branch mainly from the cranial accessory nerve.

**2. The sphenopalatine ganglion:**

- A. ( ) Supplies parasympathetic fibers to the lacrimal gland.
- B. ( ) Receives parasympathetic fibers through greater superficial petrosal nerve.
- C. ( ) Receives sensory fibers from the zygomatic nerve.
- D. ( ) Receives sympathetic fibers from the plexus around middle meningeal artery.
- E. ( ) Lies in the infratemporal fossa.
- F. ( ) Receives fibers from superior salivary nucleus.

**3. The meninges:**

- A. ( ) The maxillary nerve supplies the dura matter of middle cranial fossa.
- B. ( ) The diaphragm cella (septa of dura matter) separates pituitary gland (above) from optic chiasma (below).
- C. ( ) Arachnoid mater is a thin membrane which sends sheaths around the cranial nerves till their points of exit from the skull.
- D. ( ) Together the dura and arachnoid matter are often called leptomeninges.
- E. ( ) The inner and outer layers of dura matter are adherent except in certain places where they separate to form intracranial cisterns.
- F. ( ) Subdural space a potential space between the dura and arachnoid matters, which contains a small amount of serous fluid and fat.

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#### 4. The Cerebellum:

- A. ( ) Flocculonodular part has maintain equilibrium of the trunk.
- B. ( ) Fastigial nucleus has muscle tone regulation.
- C. ( ) Muscle paralysis is sign of the cerebellum lesion.
- D. ( ) Globose nucleus has muscle tone regulation.
- E. ( ) Posteriolateral fissure lies between flocculonodular and posterior lobes.
- F. ( ) It is the part of the brain, located dorsal to the pons and the medulla occupies most of posterior cranial fossa.

#### 5. The chorda tympani nerve:

- A. ( ) It arises from the superior salivary nucleus only.
- B. ( ) It carries taste and general sensation from the anterior 2/3 of the tongue.
- C. ( ) It carries preganglionic parasympathetic fibers to the submandibular ganglion.
- D. ( ) It joins the lingual nerve of the anterior division of mandibular n.
- E. ( ) It leaves the facial canal through a tunnel in the posterior wall of the middle ear.
- F. ( ) It runs to the medial side of sphenoid and joins the lingual nerve in the pterygopalatine fossa.

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**Q4: Choose the correct (ONE) answer for each of the following: (30/30)**

- 1. The following statements concerning the posterior cerebral artery are correct Except:**
  - A. It is the terminal branches of the basilar artery at the upper border of the pons.
  - B. Supplies all surfaces of the occipital lobe.
  - C. Supplies all surfaces of the temporal lobe.
  - D. It is separated from the superior cerebellar artery by the oculomotor nerve.
  - E. Connects with the ipsilateral ICA by the posterior communicating artery.
  
- 2. All of the following venous sinuses are paired Except:**
  - A. Transverse sinus.
  - B. Superior petrosal sinus.
  - C. Sigmoid sinus.
  - D. Straight sinus.
  - E. Sphenoparietal sinus.
  
- 3. The CSF sample obtained during the lumbar tap would be considered pathological if:**
  - A. The CSF was clear and colorless.
  - B. The CSF total protein =150 mg/dl.
  - C. The CSF sugar = 60 mg/dl (70% of serum glucose).
  - D. The CSF has lymphocytes is approximately 5/mm<sup>3</sup>.
  - E. The CSF amount is 100-150cc.

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**4. All of the following are functions of the thalamus Except:**

- A. Hunger and thirst regulation.
- B. Consciousness level regulation.
- C. Emotional regulation.
- D. Relay station for the pathway of general sensations to the cerebral cortex.
- E. Relay station for the pathway of visual sensation to the cerebral cortex.

**5. The following statements concerning the ventricular system are correct Except:**

- A. The aqueduct of Sylvius connects the third ventricle with the fourth ventricle.
- B. The two lateral ventricles communicate directly with one another through the interventricular foramen.
- C. The ventricles are developed from the neural tube in the embryo.
- D. The lateral ventricle communicates with the 3rd ventricle through the foramen Monro.
- E. The choroid plexuses are found in the lateral, third and fourth ventricles.

**6. All of the following are structures of the cerebellum Except:**

- A. Fastigial nucleus.
- B. The dentate nucleus.
- C. The emboliform nucleus.
- D. The red nucleus.
- E. The globose nucleus.

**7. All of the following are functions of the cerebellum Except:**

- A. Muscle tone regulation.
- B. Maintain equilibrium of the trunk.
- C. Learning of the motor skills.
- D. Coordination of fine voluntary motor activity.
- E. Regulation of fine voluntary motor activity.

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**8. Which of the following cranial nerves is/are not related to the cavernous sinus?**

- A. Oculomotor nerve.
- B. Trochlear nerve.
- C. Abducent nerve.
- D. Ophthalmic and maxillary divisions of the trigeminal nerve.
- E. Maxillary and mandibular divisions of the trigeminal nerve.

**9. Which of the following is not a function of the facial nerve?**

- A. Parasympathetic innervations of lacrimal glands.
- B. Motor impulses to muscles of facial expression.
- C. Taste and general sensation of the anterior 2/3 of the tongue.
- D. Parasympathetic innervations of submandibular glands.
- E. Parasympathetic innervations of sublingual glands.

**10. The cranial division of the accessory nerve:**

- A. Joins the glossopharyngeal nerve and distributed through it.
- B. Joins the inferior ganglion of vagus nerve and distributed through it.
- C. Joins the superior ganglion of vagus nerve and distributed through it.
- D. Is found in the roof of the posterior triangle.
- E. Supplies the sternocleidomastoid and trapezius muscles.

**11. The infratrochlear nerve is a terminal branch of what nerve?**

- A. Frontal nerve.
- B. Nasociliary nerve.
- C. Lacrimal nerve.
- D. Maxillary nerve.
- E. None of the above.



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**12. Sensory innervations to the upper two premolar teeth and gum is supplied by the:**

- A. Anterior superior alveolar nerve.
- B. Middle superior alveolar nerve.
- C. Posterior superior alveolar nerve.
- D. Both A & B.
- E. All of the above.

**13. Inability to shift the mandible to the right would indicate paralysis of the:**

- A. Right lateral pterygoid muscle.
- B. Left medial pterygoid muscle.
- C. Left lateral pterygoid muscle.
- D. Right medial pterygoid muscle.
- E. None of the above.

**14. The ophthalmic division of trigeminal nerve:**

- A. Gives rise to branches which supply the cornea.
- B. Innervates the muscles of eyes.
- C. Is necessary for the motor response of the corneal reflex.
- D. dura matter in the middle cranial fossa.
- E. Provides sensory innervation to the skin of the cheek.

**15. Which of the following is NOT supplied by branches of the mandibular:**

- A. Gums and teeth of the lower jaw.
- B. Anterior two-thirds of the tongue.
- C. Muscles of mastication.
- D. Skin over the angle of the mandible.
- E. Dura matter in the middle cranial fossa.

**16. Select the statement concerning the trigeminal nuclei that is correct:**

- A. The main sensory nucleus lies within the medulla oblongata.
- B. The spinal nucleus extends inferiorly as far as the sixth cervical segment.
- C. The main sensory nucleus lies within the pons.
- D. The mesencephalon nucleus lies in the pons.
- E. Both C & D.

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**17. The trigeminal ganglion:**

- A. Contains the cell bodies of the sensory fibres of the fifth cranial nerve.
- B. Contains parasympathetic synapses.
- C. Lies entirely in the epidural space.
- D. Lies in a depression on the petrous temporal bone.
- E. Both A & D.

**18. The main parasympathetic nucleus in the brain stem is:**

- A. Main sensory nucleus.
- B. Solitary nucleus.
- C. Dorsal motor nucleus of vagus nucleus.
- D. Inferior salivary nucleus.
- E. None of the above.

**19. Inflammatory reaction confined to an area around the stylomastoid foramen "after exit from stylomastoid foramen" is one of the conditions that leads to a clinical entity referred to as "Bell's palsy". This is likely to manifest as:**

- A. Difficulty in opening the eyes.
- B. Absence of wrinkling of the forehead.
- C. Complete lack of secretion of saliva.
- D. Inability to perceive taste sensation from the anterior two-thirds of the tongue.
- E. All of the above.

**20. The following statements concerning the middle cervical sympathetic ganglion are correct Except:**

- A. Gives superior thyroid branch.
- B. Gives middle sympathetic cardiac branch.
- C. Gives grey rami to the C5 and C6 nerves.
- D. Lies behind the common carotid artery at the level C6 vertebra.
- E. Gives postganglionic fibers to subclavian artery.

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**21. Which of the following branches of cranial nerves contains postganglionic parasympathetic fibers?**

- A. Chorda tympani nerve.
- B. Greater superficial petrosal nerve.
- C. Posterior auricular nerve.
- D. Lesser superficial petrosal nerve.
- E. Auriculotemporal nerve.

**22. All of the following are true about the parasympathetic fibres Except:**

- A. They originate from Edinger-Westphal nuclei in the midbrain.
- B. In the orbit are found in the branch that supplies the constrictor pupillae muscle.
- C. They synapse in the ciliary ganglion.
- D. They are transmitted via the short ciliary nerve to the ciliary muscle.
- E. In the orbit are found in the branch that supplies the dilator pupillae muscle.

**23. Which of the following branches of cranial nerves contains preganglionic parasympathetic fibers?**

- A. Chorda tympani nerve.
- B. Greater superficial petrosal nerve.
- C. Lacrimal nerve.
- D. Both A and B.
- E. Both B and C.

**24. The preganglionic parasympathetic fibers to the lacrimal glands arise from the:**

- A. Superior salivary nucleus.
- B. Solitary nucleus.
- C. Inferior salivary nucleus.
- D. Both A & B.
- E. Both A & C.

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**25. The parasympathetic innervations controlling the lacrimal gland arises from:**

- A. Chorda tympani nerve.
- B. Lesser petrosal superficial nerve.
- C. Greater petrosal superficial nerve.
- D. Oculomotor nerve.
- E. Lacrimal nerve (ophthalmic nerve).

**26. Which of the following statements best describes the sympathetic part of the autonomic nervous system?**

- A. It decreases the heart rate.
- B. It has long postganglionic axons.
- C. It has long preganglionic axons.
- D. It is active during rest and sleep.
- E. Its activity mobilizes glucagon from glucose.

**27. The parasympathetic nervous system affects all of these organs Except:**

- A. Heart.
- B. Pupillary smooth muscles.
- C. Salivary glands.
- D. Gall bladder.
- E. Skin.

**28. Mr. Smith is complaining that he is having difficulty swallowing. On examination drop right soft palate and the uvula is deviated to the left which nerve is most likely the cause of the problem?**

- A. Left glossopharyngeal nerve.
- B. Right glossopharyngeal nerve.
- C. Left vagus nerve.
- D. Right vagus nerve.
- E. None of the above.

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**29. The diencephalon is formed of all of the following structures Except:**

- A. Thalamus.
- B. Hypothalamus.
- C. Substantia nigra.
- D. Subthalamus.
- E. Epithalamus.

**30. Regarding the hypothalamus, all the statements are correct Except:**

- A. Mamillary part of the hypothalamus has posterior nucleus.
- B. Lies in front of subthalamus and antero-inferior to the thalamus.
- C. It is responsible for temperature regulation.
- D. The hypothalamus has important regulatory functions of the hunger and thirst.
- E. Optic part of the hypothalamus has lateral nucleus.

***End of Questions***  
***GOOD LUCK***