

Date: 06-02-2021

GGA 4001

First Year MBBS Examination

I MBBS Anatomy Paper 1 (New)

Time: 3 hours Max Marks: 100

Instructions: 1. Answer to the points. 2. Figure to the right indicates marks. 3. Use separate answer books for each section. 4. Draw diagrams wherever necessary. 5. Write legibly.

Section 1

1.MCQ (20)

- a. The axillary artery: (A) Arises from the vertebral artery (B) Is divided into 3 parts by teres major (C) Has no branches in its 3rd part (D) Supplies the pectoral muscles via the superior thoracic a.
- b. With regard to the brachial plexus: (A) The axillary nerve is derived from the lateral cord (B) The roots lie between the scalene muscles (C) There are 7 divisions of the trunks (D) The nerve to

subclavius is the only branch from the trunks

- c. Which doesn't pierce the Clavipectoral Fascia?(A)Lymphatic(B) Cephalic vein(C) Lateral pectoral nerve(D) Medial pectoral nerve
- d. The mandibular, division of the trigeminal nerve(exits the skull through (A) Foramen ovale. (B) Foramen lacerum. (C) Foramen spinosum. (D) Foramen rotundum.
- e. Which type of papillae on the tongue does NOT contain taste buds? (A)Filiform papillae(B) Circumvallate papillae (C) Fungiform papillae (D) Foliate papillae
- f. The blind spot" in the retina refers to the (A)Sclera. (B) Retina. (C) Optic disc. (@) Ciliary body.
- g. The medulla oblongata: (A)Lies between the midbrain and pons (B)Has only one cranial nerve emerging from it (the trigeminal nerve) (C) Has pyramids lateral to the olives(D) Passes through the foramen magnum
- h. site of protein synthesis? (A)Ribosomes (B) Peroxisome(C) Microfilaments (@) Centrioles

- i. Which structure is encircled by the circle of Willis? (A) Cavernous sinus (B) Pineal gland (C) Aqueduct of the midbrain (D) Pituitary stalk
 - j. What is the covering of an individual muscle fibre? (A) Sarcoplasm (B) Perimysium (C) Endomysium (D) Epimysium
 - k. Regarding the speech centres: (A) Broca's area is on the left side in most left-handed people (B) Broca's area is posterior (C) Wernicke's area controls motor response (D) Damage to Broca's area produces motor aphasia
 - l. Which connective tissue cell type produces collagen? (A) Fibroblast (B) Connective tissue macrophage (C) Histiocyte (D) Plasma cell
 - m. The embryonic origin of the ligamentum arteriosum is from the: (A) Third arch artery (B) Fourth arch artery (C) Fifth arch artery (D) Sixth arch artery
 - n. The optic nerve is derived from what embryonic tissue? (A) neural crest (B) ectoderm (C) mesoderm (D) endoderm
 - o. The notochord is replaced by the: (A) ependyma (B) nucleus pulposus (C)
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spinal canal (D) dorsal roots

- p. Neural crest derivatives are A/E:(A) Melanocytes (B) Schwann cells (C) Thyroid follicular cells (D) Para follicular C cells
- q. Primary center of ossification appears in (A) Epiphysis (B) Metaphysis (C) Diaphysis (D) Epiphyseal plate
- r. All of the following is example of saddle joint except (A) Sterno clavicular joint (B) Wrist joint (C) Incudo malleolar joint (D) Calcaneo cuboid joint
- s. Arterioles are the example of (A) Resistance vessels (B) Distributing vessels (C) Conducting vessels (D) Capacitance vessels
- t. A clinical condition called tetany occurs due to (A) Hypothyroidism (B) Hyperthyroidism (C) Hypoparathyroidism (D) Hyperparathyroidism

Section 2

2. Write following structured essay question: (1 out of 2) (10)

- a. Describe type, Ligaments, muscle producing movements, relations applied

anatomy of Shoulder joint.

- b. Describe structure, blood supply, Lymphatic drainage & applied anatomy of mammary gland.

3. Case based question: (2 out of 3) (10)

- a. A 82-year-old woman delivered a large(4800 g) baby vaginally after some difficulty with her labor. Her prenatal course was complicated by diabetes, which occurred during pregnancy. At delivery, the infant's head emerged, but the shoulders were stuck behind the maternal symphysis pubis, requiring the obstetrician to apply some effort and maneuvers to free up the infant's shoulders and complete the delivery. The infant was noted to have a good cry and pink color but was not moving its right arm. What is the most likely diagnosis? b. What is the most likely etiology for this condition? c. Which are the various other sign and symptoms of this clinical condition?
- b. A 47-year-old woman is undergoing surgical removal of her gallbladder (cholecystectomy). Her medical problems include insulindependent

diabetes mellitus and sleep apnea. After the anesthesiologist has administered the paralyzing agent (succinylcholine), the patient is found to have spasms of the airway and difficulty breathing with the bag and mask. The anesthesiologist attempts to place an endotracheal tube by direct visualization (direct laryngoscopy), without success due to swelling (laryngeal edema). Meanwhile, the oxygen saturation content of the blood has decreased to a very low range of 80 percent. The anesthesiologist remarks that an emergency airway needs to be surgically opened. a. What is the name of that emergency procedure? b. Which is the exact position of incision? c. Describe anatomy of that structure

- c. A 28-year-old woman at 19 weeks of pregnancy complains of acute onset of numbness of the right cheek and drooping of the right face that occurred over 1 hour. She denies trauma to the head. On examination, the patient has difficulty closing her right eyelid, and her right nasolabial fold is smoother than on the left. She also is drooling from the right side of her mouth. The
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remainder of the neurological examination is normal, a. What is the most likely diagnosis? b. What is the anatomical mechanism for this condition? c. Describe course, branches of affected structure

4A. Write short notes on: (1 out of 2) (5)

- a. Epiphysis
- b. Anastomosis

4B. Write short notes on: (1 out of 2) (0)

- a. Classification of gland
- b. Microscopic anatomy of lymph node

5. Short answer question: (2 out of 3) (10)

- a. Lumbrical muscle of upper limb
- b. Scalp
- c. Nasal Septum

Section 3

6. Long question-structured essay question:
(1 out of 2) (10)

- a. Which are the triangles of Neck? Draw and label boundaries of triangle of neck. Describe content & applied anatomy of carotid triangle.
- b. Describe relations, content, connections and applied anatomy of Cavernous sinus.

7. Write short notes on: (2 out of 3) (10)

- a. Internal Capsule
- b. Draw & label T.S of Medulla at the level of sensory decussation
- c. Hypothalamic nuclei.

8A. Write short notes on: (1 out of 2) (5)

- a. Microscopic anatomy of Trachea
- b. Microscopic anatomy of sensory ganglion

8B. Write short notes on: (1 out of 2) (5)

- a. Development of Face
 - b. Development of Pituitary gland
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9. Write answer in one or two sentence: (5 out of 6) (10)

- a. Which are the boundaries and content of Cubital fossa?
- b. What is the motor and sensory supply to tongue?
- c. Draw & label T.S. of spinal cord at thoracic level
- d. Which are the layers present in skin?
- e. Enumerate neuroglial cells & its function.
- f. Name the location where pseudostratified ciliated columnar epithelium present.
