

## M.B.B.S. FIRST PROFESSIONAL EXAMINATION, JANUARY-2022

ANATOMY  
PAPER - FIRST

[Time allotted: Three hours]

SET - A

[Max Marks: 100]

Q. 1. Multiple choice questions (attempt all MCQs in the allotted first 20 minutes in the OMR sheet) (1 x 20 = 20)

1. Which part of vertebral artery is related with atlas?
  - a. First
  - b. Second
  - c. Third
  - d. Fourth
2. Temporalis insertion is **not** present on:
  - a. Tip of coronoid process
  - b. Medial surface of coronoid process
  - c. Lateral surface of coronoid process
  - d. Anterior border of coronoid process
3. Anterior fontanelle closes:
  - a. Within 2 weeks
  - b. Within 2 months
  - c. Within 6 months
  - d. Within 2 years
4. Structure inserted in pterygoid fovea is:
  - a. Medial pterygoid
  - b. Lateral pterygoid
  - c. Temporalis
  - d. Tensor veli palatini
5. Motor nerve anterior to auricle:
  - a. Zygomatico temporal nerve
  - b. Temporal branch of Facial nerve
  - c. Auriculotemporal nerve
  - d. Supra trochlear nerve
6. **Not** a content of carotid triangle:
  - a. Glossopharyngeal nerve
  - b. Vagus nerve
  - c. Spinal accessory nerve
  - d. Hypoglossal nerve
7. Inferior root of ansa cervicalis is formed by:
  - a. C1, C2
  - b. C2, C3
  - c. C3, C4
  - d. C4, C5
8. Stapes develops from which pharyngeal arch?
  - a. First
  - b. Second
  - c. Third
  - d. Fourth
9. Spinothalamic tracts decussate:
  - a. Within 1-2 spinal segments
  - b. In medulla at olive
  - c. In pons at facial colliculus
  - d. In midbrain at superior colliculus
10. Tract passing through inferior peduncle of cerebellum is:
  - a. Anterior spinocerebellar
  - b. Posterior spinocerebellar
  - c. Pontocerebellar
  - d. Corticocerebellar
11. Inferior surface of temporal lobe is predominantly supplied by:
  - a. Anterior cerebral artery
  - b. Middle cerebral artery
  - c. Posterior cerebral artery
  - d. Basilar cerebral artery
12. **Not** a part auditory pathway:
  - a. Medial geniculate body
  - b. Lateral geniculate body
  - c. Superior olivary complex
  - d. Inferior colliculus
13. Structure **not** present in lower half of floor of fourth ventricle:
  - a. Area postrema
  - b. Locus ceruleus
  - c. Vagal triangle
  - d. Hypoglossal triangle
14. Parkinsonism is related with the lesion of:
  - a. Limbic system
  - b. Basal ganglia
  - c. Thalamus
  - d. Hypothalamus
15. Action of Sternocostal part of the pectoralis major muscle is:
  - a. Abduction
  - b. Adduction
  - c. Flexion
  - d. Lateral rotation
16. Tennis elbow is due to injury at:
  - a. Common flexor origin
  - b. Common extensor origin
  - c. Insertion of triceps
  - d. Insertion of biceps
17. All are layers of the skin **except**:
  - a. Stratum basale
  - b. Stratum granulosum
  - c. Stratum corneum
  - d. Stratum pellucidum
18. In normal anatomical position, the palm faces:
  - a. Anteriorly
  - b. Posteriorly
  - c. Superiorly
  - d. Inferiorly
19. Most common site of fertilization:
  - a. Infundibulum of fallopian tube
  - b. Isthmus of fallopian tube
  - c. Ampulla of fallopian tube
  - d. Fimbriated end of fallopian tube
20. What structure prevents implantation before appropriate time?
  - a. Trophoblast
  - b. Zona pellucida
  - c. Embryoblast
  - d. Heuser's membrane

**ANATOMY  
PAPER- FIRST**

**Note:** Attempt all questions.  
Draw suitable diagrams (wherever necessary)

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- Q. 2. Give reasons:** **(2 x 5 = 10)**
- a. Extra cranial infections may sometimes become intracranial.
  - b. Maxillary air sinus is more prone for infection than others.
  - c. Lumbar puncture is done at the junction of L3 & L4.
  - d. Brainstem lesions above pyramid lead to contralateral paralysis.
  - e. Medial cubital vein is the most preferred vein for venipuncture in the upper limb.
- Q. 3. Problem based question:** **(1+4+3+2 = 10)**
- A 45 year old man came to OPD with complaint of a midline swelling in front of his neck which moved up and down with deglutition. On examination, he was found to have tremors in his hands and bulging eyes. He was diagnosed as a case of toxic goiter.
- a. Why do thyroid swellings move up and down with deglutition?
  - b. Mention the blood supply of thyroid gland with its clinically relevant points.
  - c. State the development of the thyroid gland.
  - d. Draw a well labelled diagram showing the microstructure of the thyroid gland
- Q. 4. Write short notes on:** **(6 x 4 = 24)**
- a. Nerve supply of tongue
  - b. Lymphatic drainage of breast
  - c. Parts of internal capsule & fibres passing through each
  - d. Principles of effective communication
- Q. 5. Structured questions:**
- (i) Describe the cavernous sinus under following headings: **(4+3+3 = 10)**
- a. Diagram showing relations
  - b. Tributaries & communications
  - c. Applied aspects
- (ii) Describe the brachial plexus under following headings: **(4+3+3 = 10)**
- a. Diagram showing formation & branches
  - b. Erb's paralysis
  - c. Klumpke's paralysis
- Q. 6. Answer as indicated:** **(4 x 4 = 16)**
- a. Draw a well labelled diagram of section of medulla oblongata at mid olivary level
  - b. Classify joints in a tabular form with examples
  - c. Enumerate the derivatives of first pharyngeal arch
  - d. Write a note on Spermatogenesis

## M.B.B.S. FIRST PROFESSIONAL EXAMINATION, JANUARY-2022

ANATOMY  
PAPER - SECOND

[Time allotted: Three hours]

SET - A

[Max Marks: 100]

Q. 1. Multiple choice questions (attempt all MCQs in the allotted first 20 minutes in the OMR sheet) (1 x 20 = 20)

1. All are features of hamstring muscles **except**:
  - a. Take origin from ischial tuberosity
  - b. Insert into one of the bones of the leg
  - c. Supplied by common peroneal component of sciatic nerve
  - d. Are flexors of the knee and extensors of hip joint
2. All of the following muscles are supplied by anterior division of obturator nerve **except**:
  - a. Pectineus
  - b. Adductor longus
  - c. Adductor magnus
  - d. Gracilis
3. Inferior border of the lung corresponds to which rib in the midaxillary line?
  - a. 6<sup>th</sup> rib
  - b. 8<sup>th</sup> rib
  - c. 10<sup>th</sup> rib
  - d. 12<sup>th</sup> rib
4. Trachea divides at the level of:
  - a. 7<sup>th</sup> Cervical vertebra
  - b. 3<sup>rd</sup> Thoracic vertebra
  - c. 5<sup>th</sup> Thoracic vertebra
  - d. 7<sup>th</sup> Thoracic vertebra
5. All are **true** about the thoracic duct **except**:
  - a. Begins as a continuation of cisterna chyli
  - b. Enters the thorax through the aortic opening
  - c. Crosses the midline at the level of T5
  - d. Terminates by opening into the junction of right subclavian and right internal jugular vein
6. Which of the following are typical intercostal spaces?
  - a. 2<sup>nd</sup> to 6<sup>th</sup> spaces
  - b. 3<sup>rd</sup> to 6<sup>th</sup> spaces
  - c. 4<sup>th</sup> to 7<sup>th</sup> spaces
  - d. 4<sup>th</sup> to 9<sup>th</sup> spaces
7. The main pancreatic duct develops from:
  - a. Proximal dorsal, anastomosis & distal ventral bud duct
  - b. Proximal ventral, anastomosis & distal dorsal bud duct
  - c. Proximal dorsal & distal ventral bud duct
  - d. Proximal ventral & distal dorsal bud duct
8. All of the following are **true** about the spleen **except**:
  - a. Located in the left hypochondrium
  - b. Superior border presents notches
  - c. Its long axis corresponds to the long axis of the 9<sup>th</sup> rib
  - d. Develops in the ventral mesogastrium
9. All of the following veins are tributaries of the inferior vena cava **except**:
  - a. Right suprarenal
  - b. Left suprarenal
  - c. Right renal
  - d. Left renal
10. Haemopoietic cells of liver develop from:
  - a. Endodermal hepatic bud
  - b. Vitelline & umbilical veins
  - c. Pars cystica
  - d. Septum transversum
11. The dorsalis pedis pulse is felt medial to tendon of:
  - a. Flexor hallucis longus
  - b. Extensor hallucis longus
  - c. Extensor digitorum longus
  - d. Flexor digitorum longus
12. Lymph from the testes drains into:
  - a. Superficial inguinal lymph nodes
  - b. Deep inguinal lymph nodes
  - c. Pre and para- aortic lymph nodes
  - d. Internal iliac lymph nodes
13. **Not** a ventral branch of abdominal aorta:
  - a. Coeliac trunk
  - b. Testicular artery
  - c. Superior mesenteric artery
  - d. Inferior mesenteric artery
14. The rectum is characterized by the presence of:
  - a. Sacculations
  - b. Appendices epiploicae
  - c. Transverse mucosal folds within the lumen
  - d. Haustrations
15. The widest and the most dilatable part of the male urethra is?
  - a. Prostatic part
  - b. Membranous part
  - c. Spongy part
  - d. External urethral orifice
16. All are contents of the deep perineal pouch **except**:
  - a. Deep transverse perineal muscle
  - b. Sphincter urethrae muscle
  - c. Bulbospongiosus muscle
  - d. Membranous urethra
17. Urethral folds unite cranially to form the:
  - a. Genital tubercle
  - b. Labia minora
  - c. Mons pubis
  - d. Genital swellings
18. Which part of the duodenum forms a boundary of the epiploic foramen?
  - a. First part
  - b. Second part
  - c. Third part
  - d. Fourth part
19. All of the following form boundaries of the Hesselbach's Triangle **except**:
  - a. Lateral border of rectus abdominis
  - b. Medial border of rectus abdominis
  - c. Inferior epigastric artery
  - d. Inguinal ligament
20. Monosomy of the X chromosome leads to:
  - a. Klinefelter's syndrome
  - b. Turner's syndrome
  - c. Patau's syndrome
  - d. Edward's syndrome

**ANATOMY**  
**PAPER- SECOND**

**Note:** Attempt all questions.  
Draw suitable diagrams (wherever necessary)

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- Q. 2. Give reasons:** **(2 x 5 = 10)**
- a. Benign prostatic hypertrophy presents with difficulty in urination.
  - b. Midgut loop herniates out at 6-8 weeks.
  - c. Appendix has variable positions.
  - d. Foreign bodies usually enter right bronchus.
  - e. Intramuscular injections are given in upper and outer quadrant of the gluteal region.
- Q. 3. Problem based question:** **(3+2+2+3 = 10)**
- A 40 year old man was brought to casualty with a stab wound in the left loin and swelling in the left renal angle. X-ray revealed fracture of 11<sup>th</sup> & 12<sup>th</sup> ribs. There was frank blood in the urine. He was diagnosed to be having injury of kidney.
- a. Draw a well labelled diagram showing anterior relations of the kidney involved.
  - b. Mention the sources of development of kidney.
  - c. What is renal angle?
  - d. Draw a well labelled diagram showing the microstructure (histology) of the kidney.
- Q. 4. Write short notes on:** **(6 x 4 = 24)**
- a. Stomach bed
  - b. Femoral sheath
  - c. Down's syndrome
  - d. Precautions to be taken while handling cadavers
- Q. 5. Structured questions:**
- (i) Write about formation of Portal vein. Mention important sites and components of Portocaval anastomosis in a tabular form. **(2+8 = 10)**
- (ii) Write about right atrium in following headings: **(3+2+5 = 10)**
- a. Internal features
  - b. Development
  - c. Development of interatrial septum
- Q. 6. Answer as directed:** **(4 x 4 = 16)**
- a. List the factors helping in venous return from lower limb
  - b. Write a note on flat foot
  - c. Draw a well labelled diagram showing azygos system of veins
  - d. Draw a well labelled diagram of pseudostratified columnar epithelium