



RAN-2006000101010001-S

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1st MBBS Examination January - 2024

Anatomy (Human) : Paper - I

Set - 1 (New CBME)

Time: 3 Hours]

[Total Marks: 100

सूचना : / Instructions

(1) नीचे दर्शाविए निशानीवाणी विगतो उत्तरवही पर अवश्य लभवी.
Fill up strictly the details of signs on your answer book

Name of the Examination:
1st MBBS

Name of the Subject :
Anatomy (Human) : Paper - I - Set - 1 (New CBME)

Subject Code No.: 2006000101010001-S

Seat No.:

Student's Signature

- (2) Write each section in separate answer sheet.
- (3) Draw neat and labelled diagrams wherever necessary.
- (4) Figure to the right indicates maximum marks.
- (5) In section - A, all MCQs are compulsory; only one answer will be accepted, no Negative marking & answers will be marked with blue/black pen on OMR sheet & must be submitted within 30 minutes.

Section - A : MCQ

(20 marks)

1. Which of the following can extend, adduct & medially rotate the arm-?
A. Teres minor
B. Subscapularis
C. Latissimus dorsi
D. Deltoid
2. Subacromial bursa separates coracoacromial arch from the tendon of-
A. Subscapularis
B. Teres minor
C. Infraspinatus
D. Supraspinatus
3. Epitrochlear lymph nodes are located along which vessel -
A. Median cubital vein
B. Cephalic vein above elbow
C. Cephalic vein in the roof of cubital fossa
D. Basilic vein above elbow

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[P.T.O.]

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4. Ligaments of Cooper are modifications of –
 - A. Fibrous stroma of breast
 - B. Axillary fascia
 - C. Fatty tissue of breast
 - D. Pectoral fascia
5. Froment's test is performed to assess the integrity of –
 - A. 1st Lumbrical
 - B. Adductor pollicis
 - C. 1st Dorsal interosseus
 - D. 2nd Palmar interosseus
6. Piriform fossa is located in –
 - A. Oropharynx
 - B. Nasopharynx
 - C. Laryngopharynx
 - D. Laryngeal inlet
7. Lacrimation is affected due to damage to which of the following nerve –
 - A. Nasocilliary nerve
 - B. Anterior ethmoidal nerve
 - C. Trigeminal nerve
 - D. Greater petrosal nerve
8. The skin area over the angle of mandible is supplied by –
 - A. Zygomaticotemporal nerve
 - B. Auriculotemporal nerve
 - C. Greater auricular nerve
 - D. Lesser occipital nerve
9. The site of choice for cisternal puncture in infants is –
 - A. Lumbar
 - B. Interpeduncular
 - C. Cerebellomedullary
 - D. Pontine
10. A 20 years old swimmer with otitis media presents with loss of taste sensation. Which nerve is likely to be affected –?
 - A. Vagus
 - B. Glossopharyngeal
 - C. Lingual
 - D. Chorda tympani
11. Spinothalamic tracts terminate on the following thalamic nucleus –
 - A. VPL
 - B. Pulvinar
 - C. Ventral lateral
 - D. VPM
12. Following cells are derived from neural crest **except** –
 - A. Dorsal root ganglion
 - B. Sympathetic neuron
 - C. Dorsal nucleus of vagus
 - D. Parasympathetic neuron
13. Paracentral lobule is supplied by-
 - A. Middle cerebral artery
 - B. Anterior cerebral artery
 - C. Posterior cerebral artery
 - D. Both anterior & middle cerebral artery

14. The nucleus of origin of the facial nerve includes all of the following **except** –
- A. Inferior salivatory nucleus B. Superior salivatory nucleus
C. Nuclei of solitary tract D. Motor nucleus
15. Following combination is correct –
- A. Stereocilia - Intestine B. Microvilli - Epididymis
C. Cilia - Appendix D. Flagella - Spermatozoa
16. Which of the following is the feature of spongy bone –?
- A. Osteon or Haversian system B. Canaliculi
C. Volkmann's canal D. Interstitial lamellae
17. Para-follicular cells or C cells of thyroid gland develop from –
- A. 1st Pharyngeal pouch B. 2nd Pharyngeal pouch
C. 3rd Pharyngeal pouch D. Caudal pharyngeal complex
18. Placenta develops from –
- A. Decidua capsularis & chorion B. Decidua capsularis & amnion
C. Decidua basalis & chorion D. Decidua parietalis & trophoblast
19. All are the example of membranous bones **except**
- A. Parietal B. Mandible
C. Clavicle D. Scapula
20. Identify the wrong statement about spurt muscles –
- A. Arises at a distance from site of action
B. It is a prime mover
C. Swing component is more powerful
D. It is inserted away from the joint on which it acts

Section - B

Q. 2. Case base question. (2 out of 3) 16 Marks

- A. 4-year-old child swallowed a shirt button. Since the child began to suffocate she was taken to the hospital, where on X-ray examination impaction of foreign body in the larynx was confirmed. (2 + 2 + 2 + 3)
1. Name the parts of laryngeal cavity, which is the narrowest part of laryngeal cavity?
 2. Write down the sensory & motor nerve supply of the larynx.
 3. What happened if recurrent laryngeal nerve gets injured, unilaterally & bilaterally?
 4. Enumerate the cartilages of the larynx and describe the leaf-shaped cartilage.

B. A 35-year-old male involved in domestic fight. During the fight he got a deep cut in the middle of the back of his left arm. There was profuse bleeding from the wound. He immediately rushed to the hospital.

(1 + 2 + 2 + 3)

1. Which nerve and artery at this site is danger of injury?
2. What is the origin and termination of the involved artery?
3. The Involved nerve arises from where & which other nerve arise from the same part?
4. Describe in detail the condition if the concerned nerve damage at the site.

C. A 35 years male complained of tinnitus & vertigo, deafness, decreased lacrimation in the left eye, & asymmetry of face with deviation of angle of mouth to the right side. Loss of sensations of pain & temperature on left side of the face MRI examination revealed tumor in the cerebellopontine angle. (1 + 4 + 3)

1. On which side would the tumor be?
2. Explain the anatomical basis of all the symptoms mentioned above.
3. Explain the difference between supranuclear & infranuclear palsy of facial nerve.

Q. 3. A. Write short note on any 2 out of three.

10 Marks

- a. Lymphatic drainage of breast & applied aspect.
- b. Venous drainage of upper limb & applied aspect
- c. Enumerate the deep fascia of the palm. Describe palmar aponeurosis with applied aspect

B. Write short note on.

10 Marks

- I. Blastocyst or Primitive streak – its fate, function & clinical correlation.
- II. Development of pituitary gland with its clinical correlation or Development of external ear with tympanic membrane

C. Write short note on any one out of two.

4 marks

- i. Ossification
- ii. Classification of muscle according to their movements

Section - C

Q. 4. Write a note on any 2 out of 3. 16 marks

- i. Describe extrinsic muscles of the tongue – their origin, insertion, action, embryological basis of the nerve supply of tongue. If right sided hypoglossal nerve gets paralysed, which side tongue deviate & why.
- ii. Lacrimal apparatus with its components. Write a note on secretomotor innervations of lacrimal gland.
- iii. Describe investing layer of deep fascia of neck in details with its applied aspect.

Q. 5. A. Write a short note. (2 out of 3) 10 Marks

1. Define spina bifida. Describe causes, types and clinical features of spina bifida.
2. Describe basal ganglion under following headings –
 - (a) Parts
 - (b) Functions
 - (c) Connections
 - (d) Applied anatomy
3. Visual pathway with its applied aspect.

B. Write short Note. 10 Marks

1. Histology of stratified squamous epithelium or Histology of Sympathetic ganglion.
2. Histology of cerebrum or Histology of Retina

C. Short note. (any one) 4 Marks

1. Classification of synovial joints & their movements.
2. Compare the microscopic features of a medium sized artery & medium sized vein.
3. Umbilical cord & its anomalies.



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1st MBBS Examination January - 2024

Anatomy : Paper - II

Human Anatomy : Set - 2 (New CBME)

Time: 3 Hours]

[Total Marks: 100

सूचना : / Instructions

(1)

नीचे दृष्टावैव निशानीवाणी विगतो उत्तरवही पर अवश्य लभवी.
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Name of the Examination:

1st MBBS

Name of the Subject :

Anatomy : Paper - II - Human Anatomy : Set - 2 (New CBME)

Subject Code No.: 2006000101010002-S

Seat No.:

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Student's Signature

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- (3) Draw neat and labelled diagrams wherever necessary.
- (4) Figure to the right indicates maximum marks.
- (5) In section - A, all MCQs are compulsory; only one answer will be accepted, no Negative marking & answers will be marked with blue/black pen on OMR sheet & must be submitted within 30 minutes.

Section - A : MCQ

(20 marks)

1. When a segment of DNA is transferred from one non-homologous chromosome to another, it is called –
 - A. Deletion of a segment of DNA
 - B. Duplication of a segment of DNA
 - C. Translocation of a segment of DNA
 - D. Inversion of a segment of DNA
2. All of the following are non-invasive techniques except –
 - A. Ultrasonography
 - B. Foetal echocardiogram
 - C. CT/MRI
 - D. Cordocentesis
3. Embryologically genital swellings in the male give rise to –
 - A. Penis
 - B. Scrotal sac
 - C. Penile urethra
 - D. Prostate

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[P.T.O.]

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4. Limb muscles develop from –
 - A. Paraxial mesoderm
 - B. Lateral plate mesoderm
 - C. Splanchnic mesoderm
 - D. Neural crest cells

5. Which is correct regarding microscopic features of kidney –
 - A. Renal columns are extensions of renal pyramids into the cortex
 - B. Collecting ducts pass through renal papillae & open into minor calyces
 - C. Medullary rays are part of cortex between the medullary pyramids
 - D. The Bowman's capsule is lined by simple columnar epithelium

6. While observing the histology slide of lung, a student identifies Clara cells, which of the following airways was observed by the student –
 - A. Alveoli
 - B. Bronchiole
 - C. Alveolar duct
 - D. Alveolar sac

7. Locking of the knee joint is caused by the contraction of -
 - A. Popliteus
 - B. Biceps femoris
 - C. Semimembranosus
 - D. Quadriceps femoris

8. All structures enter the gluteal region through greater sciatic foramen **except-**
 - A. Sciatic nerve
 - B. Pudendal nerve
 - C. Tendon of obturator internus
 - D. Internal pudendal artery

9. Arterial pulses can be felt in the lower limb at all of the sites **except** –
 - A. At midinguinal point
 - B. In the popliteal fossa
 - C. On the dorsum of the foot
 - D. In the sole of the foot

10. All the statements are correct about calcaneum **except** –
 - A. It is largest tarsal bone
 - B. It starts ossifying after birth
 - C. Anteriorly it articulates with cuboid bone
 - D. It provides attachment to tendoachillis

11. All forms cruciate anastomosis on the back of the thigh **except** –
 - A. Transverse branch of medial circumference femoral artery
 - B. Ascending branch of first perforating artery
 - C. Ascending branch of the inferior gluteal artery
 - D. Transverse branch of the lateral circumflex femoral artery

12. Lingula is a tongue shaped projection from –
- A. Upper lobe of left lung B. Upper lobe of right lung
C. Lower lobe of right lung D. Lower lobe of left lung
13. The right margin of cardiac shadow in a radiograph is formed by -
- A. Arch of aorta B. Pulmonary trunk
C. Right ventricle D. Right atrium
14. Phrenic nerve supplies all **except** -
- A. Parietal layer of pericardium B. Fibrous pericardium
C. Pulmonary pleura D. Mediastinal pleura
15. Which of the following is not related to superior surface of first rib-?
- A. Ventral root of T1 B. Lower trunk of brachial plexus
C. Subclavian artery D. Subclavian vein
16. All structures emerge through the sacral hiatus **except** –
- A. Fifth sacral nerve B. Coccygeal nerves
C. Filum terminate D. Spinal meninges
17. Epiploic foramen of Winslow is bounded by all **except** –
- A. Caudate lobe of liver superiorly
B. First part of duodenum inferiorly
C. Portal vein posteriorly
D. Right free margin of lesser omentum anteriorly
18. All statements are correct about parietal peritoneum **except** –
- A. It forms the innermost layer of abdominal wall
B. It is composed of mesothelial serous membrane
C. It is insensitive to pain
D. It develops from somatopleuric mesoderm
19. All are correct about gastric canal **except** –
- A. It is located along the lesser curvature of the stomach
B. It is also called Magenstrasse
C. It is produced due to the absence of longitudinal fold of gastric mucosa
D. It is prone to ulceration

20. Which of the following statement is false about pelvic outlet—?
- It is bounded anteriorly by lower margin of pubic symphysis
 - It is bounded posterolaterally by sacrotuberous ligaments
 - It is bounded anterolaterally by the conjoint ischiopubic rami
 - Its transverse diameter is maximum

Section - B

Q. 2. Case base question. (2 out of 3) 16 Marks

- A. A mother took her 6 years old son to a pediatrician & complained that her child complains of excessive fatigue upon exertion. After examination & complete investigations, the Doctor detected a septum defect in the heart of the child & told his mother that your son is suffering from a defect in the heart that is a very common birth defect of heart in children. Answer the following question. (1 + 4 + 3)
- What is the most common congenital septum defect of the heart?
 - Write the development of the mentioned defective septum of the heart.
 - Give the embryological basis of the said defect.
- B. X-Ray of a 46 year old female after a road traffic accident revealed posterior dislocation of femur. Her hamstrings & all muscles of the leg & foot were paralyzed. She had foot drop & sensory loss over the posterolateral aspect of leg & dorsum of the foot except medial border. (1 + 1 + 3 + 2 + 1)
- Which nerve is injured?
 - Write down the origin, root value of the injured nerve.
 - What is foot drop & give the anatomical reason to had foot drop.
 - Give the reason of sensory loss over the posterolateral aspect of leg & dorsum of the foot.
 - Give the reason why sensations not lost at medial border of the foot
- C. A 65 years old man with a history of chronic cough noticed a gradually increasing swelling in the left inguinal region. After physical examination the surgeon noted a lemon sized swelling above the pubic tubercle. The swelling increased in size on coughing. This was a case of direct inguinal hernia. (1 + 1 + 2 + 1 + 3)
- Which finding in the above mentioned physical examination is confirmatory of inguinal hernia?
 - What is the surface marking of deep inguinal ring?
 - Difference between direct inguinal hernia & indirect inguinal hernia.
 - What are the boundaries of Hasselbach's triangle?
 - What are the factors/ protective devices which prevent the formation of inguinal hernia?

Q. 3. A. Write short note on any 2 out of 3. 10 Marks

1. Arches of the foot under the heading – their functions, Types, Factors maintaining the longitudinal arches & applied.
2. Bursae around the knee joint with their applied aspect.
3. Factors helping the venous drainage of the lower limb. Add a note on varicose veins.

B. Write short note on. 10 Marks

1. Describe the microscopic structure of the layers of epidermis & their functions.

OR

Describe the microscopic structure of stomach.

2. Describe the microscopic structure of placenta.

OR

Describe the microscopic structure of prostate.

C. Short note on any one out of two. 4 Marks

1. Polymerase chain reaction.
2. Classification of chromosomes.

Section - C

Q. 4. Write short note on any two out of 3. 16 Marks

1. Describe portal vein in details. Give the different sites & anatomical basis of portocaval anastomosis.
2. Describe ureter under following – length, course, parts, relations, sites of anatomical constrictions, & its blood supply. Add a note on ureteric colic.
3. Describe uterus under following – location & parts, axis, relations, & blood supply. Add a note on anatomical basis of prolapse of uterus.

Q. 5. A. Write short note on any two out of 3. 10 Marks

1. Thoracic duct - its formation; course, termination, tributaries & applied aspect.
2. Describe pleura. Add a note on pneumothorax.
3. Give the formation, course, tributaries & termination of coronary sinus.

B. Write short note on any two out of 3.

10 Marks

1. Vitellointestinal duct & its anomalies
2. Factors responsible for descent of testis. Add a note on cryptorchidism.
3. Development of kidney & its anomalies.

C. Write short note on any one.

4 Marks

1. Magnetic resonance angiography.
2. Describe the physician role & responsibility to society & the community that she /he serve.
3. Bony landmarks for superior extensor retinaculum in lower limb & structures passing beneath it.