



RAN-2506000101012501 / 2406000101010501

First Year M.B.B.S. Examination August - 2025

Human Anatomy (Paper - I) (Level - 1)

Time: 3 Hours]

[Total Marks: 100

સૂચના : / Instructions

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.

Fill up strictly the details of signs on your answer book

Name of the Examination:

First Year M.B.B.S.

Name of the Subject :

Human Anatomy (Paper - I) (Level - 1)

Subject Code No.: 2506000101012501 / 2406000101010501

Seat No.:

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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

(1×20=20)

1. A 50-year-old patient complained of double vision. On physical examination, the ophthalmologist found that his right eye, when at rest, was turned medially and when he was asked to turn it laterally, he failed to do so. Identify which cranial nerve is involved-

[a] Right abducent nerve	[b] Left abducent nerve
[c] Right oculomotor nerve	[d] Left oculomotor nerve
2. All the following muscles are supplied by ansa cervicalis except:

[a] Sternothyroid	[b] Omohyoid
[c] Sternohyoid	[d] Geniohyoid

3. Paralysis of which muscle causes ptosis in Horner syndrome :
 [a] Superior tarsal muscle [b] Orbitalis
 [c] Levator palpebrae superioris [d] Orbicularis oculi
4. Which of the following causes the opening of auditory tube?
 [a] Tensor veli palatini [b] Levatorveli palatini
 [c] Palatoglossus [d] Musculus uvulae
5. Which of the following reflexes tests the integrity of the nucleus ambiguous?
 [a] Corneal reflex [b] Gag reflex
 [c] Stapedial reflex [d] Jaw reflex
6. Occlusion of branches of which of following arteries can lead to loss of voluntary control of micturition & defaecation?
 [a] Anterior cerebral artery [b] Middle cerebral artery
 [c] Posterior cerebral artery [d] Anterior choroidal artery
7. Lesion of which component of visual pathway lead to bitemporal hemianopia?
 [a] Optic nerve [b] Optic tract
 [c] Optic chiasma [d] Optic cortex
8. Fasciculus gracilis & fasciculus cuneatus contain fibres of _____ order neuron formed by efferents of _____.
 [a] 1st, dorsal root ganglion
 [b] 1st, nucleus gracilis & cuneatus
 [c] 2nd, dorsal root ganglion
 [d] 2nd, nucleus gracilis & cuneatus
9. Stria terminalis is efferent fibres of:
 [a] Globus pallidus [b] Amygdaloid body
 [c] Claustrum [d] Caudate nucleus
10. Froment's sign tests the integrity of which of the following muscles?
 [a] Flexor pollicis brevis [b] Abductor pollicis brevis
 [c] Opponens pollicis [d] Adductor pollicis

11. Skin over axilla is supplied by:

[a] Radial nerve	[b] Musculocutaneous nerve
[c] Intercosto-brachial nerve	[d] Median nerve

12. A deep laceration on the radial side of the wrist as in suicide attempt may cut the following structures from lateral to medial side:

[a] Radial artery, Median nerve, Tendon of flexor carpi radialis, Tendon of palmaris longus, Tendon of flexor digitorum superficialis
[b] Radial artery, Tendon of flexor carpi radialis, Median nerve, Tendon of palmaris longus, Tendon of flexor digitorum superficialis
[c] Radial artery, Tendon of flexor carpi radialis, Tendon of palmaris longus, Median nerve, Tendon of flexor digitorum superficialis
[d] Median nerve, Radial artery, Tendon of flexor carpi radialis, Tendon of palmaris longus, Tendon of flexor digitorum superficialis

13. Which of the following does not form the boundary of quadrangular space?

[a] Surgical neck of humerus	[b] Long head of triceps
[c] Teres major	[d] Long head of biceps

14. In patient having Golfer's elbow or medial epicondylitis, which of the following muscles is not affected?

[a] Flexor pollicis longus	[b] Flexor carpi radialis
[c] Pronator teres	[d] Palmaris longus

15. Which of the following is not a portal circulation:

[a] Hypophyseal	[b] Hepatic circulation
[c] Renal circulation	[d] Pulmonary circulation

16. Match the following muscle pairs with regard to type of muscle fibres:

1. Rectus femoris	a. Multipennate fibres
2. Deltoid	b. Unipennate fibres
3. Tibialis anterior	c. Bipennate muscle
4. Palmar interossei	d. Circumpennate
[a] 1-b, 2-d, 3-a, 4-c	[b] 1-c, 2-a, 3-d, 4-b
[c] 1-d, 2-a, 3-b, 4-c	[d] 1-c, 2-d, 3-a, 4-b

17. Intervillous spaces of placenta contains:

[a] Maternal blood	[b] Foetal blood
[c] Amniotic fluid	[d] Both maternal & foetal blood
18. All the following neuroglial cells develop from ectoderm except:

[a] Astrocyte	[b] Oligodendrocyte
[c] Microglia	[d] Ependymal cell
19. All statements regarding histology of cornea are true except:

[a] Lined by stratified columnar epithelium
[b] Stroma contain collagen fibres
[c] Rich nerve supply
[d] Avascular structure
20. Which of the following cells constitute Hassall's corpuscles:

[a] Macrophages	[b] B Lymphocytes
[c] Epithelial reticular cells	[d] T Lymphocytes

Section - B

Q. 2. Long essay question - (1×10=10)

Describe in detail about the structures seen in the transverse section of midbrain at the level of inferior colliculus. Mention the arterial supply of midbrain. Explain the anatomical basis of the symptoms of the weber's syndrome.

Q. 3. Give the Anatomical/Embryological Reason of any 5 - (5×3=15)

1. A 24 years old soldier was brought to the emergency with a recent history of bullet injury in the back region. On examination doctor noticed ipsilateral upper motor neuron paralysis below the level of the lesion with ipsilateral loss of proprioceptive sensations & contralateral loss of pain, temperature & touch sensation. He was diagnosed a case of Brown-Sequard syndrome. Explain anatomical reason of presenting symptoms.
2. Define goitre. Explain the anatomical basis of pressure symptoms produced by goitre.
3. Define ulnar paradox. Explain its anatomical basis.
4. Which carpal bone is most likely to fracture? Explain the anatomical basis of most common complication of fracture of this bone.
5. Explain the anatomical basis of presenting symptoms of cavernous sinus thrombosis.
6. Explain the anatomical basis of Zenker's diverticulum.

Q. 4. Write short notes on any 3 -

(3×5=15)

1. Layers of scalp.
2. Muscles of mastication
3. Posterior interosseous nerve.
4. Histology of Retina.

Section - C

Q. 5. Applied aspect -

(4×5=20)

1. Hoarseness of voice.
2. Enumerate the modifications of deep fascia of the palm. Explain the anatomical basis of Dupuytren's contracture
3. Anencephaly.
4. Nerve supply of tongue with its embryological basis.

Q. 6. Write short notes on

(4×5=20)

1. Metaphysis & its clinical significance or Classification of nerve injury
2. Anomalies of placenta
3. Difference between Histological features of elastic artery & muscular artery.
4. Role of human cadaveric dissection in anatomy.



RAN-2506000101012502 / 2406000101010502

First Year M.B.B.S. Examination September - 2025

Human Anatomy (Paper - II) (Level - 1)

Time: 3 Hours]

[Total Marks: 100

સૂચના : / Instructions

(1)

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Name of the Examination:

First Year M.B.B.S.

Name of the Subject :

Human Anatomy (Paper - II) (Level - 1)

Subject Code No.: 2506000101012502 / 2406000101010502

Seat No.:

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Student's Signature

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- (3) Draw neat and labelled diagrams wherever necessary.
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Section - A

(1×20=20)

1. Ligation of common hepatic artery will impair the blood supply in:
 - [a] Right gastric & left gastric artery
 - [b] Right gastric & right gastroepiploic artery
 - [c] Right gastroepiploic & short gastric vessels
 - [d] Right gastric & short gastric vessels
2. Correct statement regarding urinary bladder is:
 - [a] Space of Retzius is present behind external trigone
 - [b] Apex provide attachment to medial umbilical ligament
 - [c] Uvula vesicae is part of internal urethral orifice
 - [d] Sphincter urethra surrounds the neck of bladder

3. Which of the following arteries pass in front of uncinate process of pancreas?

[a] Superior mesenteric artery	[b] Inferior mesenteric artery
[c] Coeliac trunk	[d] Splenic artery

4. Cremasteric fascia around spermatic cord is derived from:

[a] Internal oblique	[b] Transverse abdominis
[c] Cremaster	[d] Fascia transversalis

5. All statements are correct about psoas major muscle except:

[a] It contains the lumbar plexus within the substance
[b] It is pierced by the genitofemoral nerve
[c] It arises from all the lumbar vertebrae
[d] It is the chief extensor of the hip joint

6. Which of the following nerves are called as typical intercostal nerves?

[a] 1, 2, 3, 4	[b] 2, 3, 4, 5
[c] 3, 4, 5, 6	[d] 4, 5, 6, 7

7. All the following joints of thorax are synovial joints except:

[a] Interchondral joint	[b] Costochondral joint
[c] Costovertebral joint	[d] Costotransverse joint

8. All the following are present in the right ventricle except:

[a] Supra-ventricular crest	[b] Tendon of Todaro
[c] Chordae tendineae	[d] Papillary muscle

9. All the following structures produce constrictions of oesophagus except:

[a] Arch of azygos vein	[b] Arch of aorta
[c] Left principal bronchus	[d] Upper oesophageal sphincter

10. Cardiac notch present in the _____ lung extends from _____ costal cartilages.

[a] Left, 2 nd to 5 th	[b] Right, 2 nd to 5 th
[c] Left, 4 th to 6 th	[d] Right, 4 th to 6 th

11. A patient with tarsal tunnel syndrome presents with complaints of pain over the heel. Compression of which nerve can cause this syndrome -
 [a] Tibial nerve [b] Common peroneal nerve
 [c] Great saphenous nerve [d] Short saphenous nerve
12. Oblique popliteal ligament is expansion from the tendon of ____ muscle.
 [a] Biceps femoris [b] Adductor magnus
 [c] Semitendinosus [d] Semimembranosus
13. Positive Trendelenburg sign is seen in injury of:
 [a] Gluteus medius & minimus [b] Gluteus maximus
 [c] Quadriceps femoris [d] Soleus
14. Line of gravity passes posterior to:
 [a] Sacrum [b] Knee joint
 [c] Hip joint [d] Ankle joint
15. Example of Y-linked inheritance is:
 [a] Hairy pinna
 [b] Leber's hereditary optic neuropathy
 [c] Alkaptonuria
 [d] Duchenne muscular dystrophy
16. A family pedigree shows that a genetic disorder affects every generation without skipping. Both males & females are equally affected. Onset of symptoms occurs later in life. Which inheritance pattern is most likely:
 [a] Autosomal dominant [b] Autosomal recessive
 [c] X-linked recessive [d] Y-linked inheritance
17. Uterus develop from:
 [a] Ureteric bud [b] Metanephros
 [c] Mesonephric duct [d] Para-mesonephric duct
18. All the following act as shunts to divert the blood flow during foetal circulation except:
 [a] Foramen ovale [b] Conus cordis
 [c] Ductus arteriosus [d] Ductus venosus

19. While observing the histology slide of lung, a student identifies Clara cells, which of the following airways was observed by the student -
- | | |
|-------------------|------------------|
| [a] Bronchiole | [b] Alveoli |
| [c] Alveolar duct | [d] Alveolar sac |
20. Microvilli are absent in:
- | | |
|-------------|--------------|
| [a] Ileum | [b] Duodenum |
| [c] Stomach | [d] Jejunum |

Section - B

Q. 2. Long essay question - (1×10=10)

Describe rectus sheath in detail under following headings -

- a. Its formation
- b. contents and function
- c. Write a note on rectus abdominis muscle with the functional importance of tendinous intersection of rectus abdominis muscle.

Q. 3. Give the Anatomical/ Embryological Reason of any 5 - (5×3=15)

1. A young executive complained of pain in abdomen in the epigastric region. He was always in hurry, gets worried very often & loves to eat spicy foods. What will be the cause of pain & why the pain referred to epigastric region?
2. A 15-year-old (riding a bicycle) got an accident. He was hit in the perineum with a sharp object. He did not pass urine after the trauma. During examination, the urethra was crushed against the edge of the pubic bones. The urine reaches deep to the anterior abdominal wall but not into the thigh. Give its anatomical reason.
3. Explain the anatomical basis of Myocardial infarction
4. Give the anatomical basis of Congenital dislocation of hip joint
5. Explain the embryological basis of patent ductus arteriosus
6. What is an anatomical reason of Anterior leg syndrome

Q. 4. Write short notes on any 3 - (3×5=15)

1. Posterior relations of kidney
2. Lobes of prostate & their clinical significance
3. Factors helping the venous drainage of lower limb
4. Histology of Pancreas

Section - C

Q. 5. Applied aspect - attempt all - (4×5=20)

1. Acute appendicitis
2. Bursae situated around the knee joint & their applied aspect
3. Ectopia vesicae
4. Pleural effusion

Q. 6. Write short notes on - (4×5=20)

1. Autosomal dominant & recessive inheritance or Trisomy 21
 2. Histology of Placenta
 3. Tubal pregnancy & methods to assess tubal patency
 4. Name the factors that can facilitate effective communication in doctor-patient relationships.
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