



RAN-2006000101010001

1st M.B.B.S Examination January - 2023

Human Anatomy - Paper 1 (Set - 3)

Time: 3 Hours |

[Total Marks: 100

સૂચના : / Instructions

- (1) નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવર્તી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book
- Name of the Examination:
1st M.B.B.S
- Name of the Subject :
Human Anatomy - Paper 1 (Set - 3)
- Subject Code No.: 2006000101010001

Seat No.:

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Student's Signature

- (2) Write each section in separate answer book.
- (3) **In section A**, all MCQs are compulsory, only one answer will be accepted, no negative marking & **must be submitted within first 30 minutes**.
- (4) Section A carry 20 marks and Section B & C carry 40 marks each.
- (5) Draw labelled diagrams wherever necessary.
- (6) Write to the point.

SECTION A - MCQs

1×20 = 20 marks

- Inferior thyroid artery is branch of
 - External carotid artery
 - Thyrocervical trunk
 - Costocervical trunk
 - Deep cervical artery
- Which of following is motor nerve to scalp?
 - Lesser occipital nerve
 - Greater occipital nerve
 - Auriculo-temporal nerve
 - Posterior auricular nerve
- Which of following venous sinus lies in meningeal layers of dura matter?
 - Superior sagittal
 - Inferior sagittal
 - Occipital
 - Cavernous
- Combined actions of which muscles result in intorsion of eyeball?
 - Superior rectus and superior oblique
 - Inferior rectus and inferior oblique
 - Superior rectus and inferior oblique
 - Inferior rectus and superior oblique



5. Vertebral level of laryngotracheal junction is
 - a) C6
 - b) C7
 - c) T1
 - d) C5
6. Axilla contains all EXCEPT
 - a) Axillary tail
 - b) Intercostobrachial nerve
 - c) Trunks of brachial plexus
 - d) Long thoracic nerve
7. Action of acromial fibres of deltoid on shoulder joint is
 - a) Medial rotation
 - b) Lateral rotation
 - c) Adduction
 - d) None of above
8. All arise from common extensor origin of humerus EXCEPT
 - a) Extensor carpi radialis brevis
 - b) Extensor digiti minimi
 - c) Extensor carpi radialis longus
 - d) Extensor carpi ulnaris
9. Incorrect about ERB's paralysis is
 - a) Arm is adducted
 - b) Arm is medially rotated
 - c) Forearm is extended
 - d) Forearm is supinated
10. Ulnar nerve innervates
 - a) Medial half of flexor digitorum profundus
 - b) Lateral half of flexor digitorum profundus
 - c) Medial half of flexor digitorum superficialis
 - d) Lateral half of flexor digitorum superficialis
11. Pain & thermal sensations from forehead area is projected in
 - a) Principal sensory nucleus of trigeminal nerve
 - b) Spinal nucleus of trigeminal nerve
 - c) Mesencephalic nucleus of trigeminal nerve
 - d) Nucleus ambiguus
12. False about thalamic nuclei is
 - a) Anterior nucleus is part of limbic system
 - b) Medial nucleus is connected with prefrontal cortex
 - c) Ventral posterior medial nucleus receives spinal lemniscus
 - d) Ventral anterior nucleus is connected with motor & premotor cortex
13. All pass through inferior cerebellar peduncle EXCEPT
 - a) Vestibulocerebellar tract
 - b) Cerebello-vestibular tract
 - c) Anterior spino-cerebellar tract
 - d) Posterior spino-cerebellar tract
14. Which of following is functional component of trigeminal nerve?
 - a) General somatic afferent
 - b) Special somatic afferent
 - c) General visceral efferent
 - d) Somatic efferent
15. Which of following is receptor in muscle?
 - a) Motor end plate
 - b) Muscle spindle
 - c) Neurotransmitter
 - d) Motor unit

16. Perichondrium is absent in all EXCEPT
 - a) Articular cartilage
 - b) Intervertebral disc
 - c) Glenoid labrum
 - d) Elastic cartilage
17. Somites develop from
 - a) Paraxial mesoderm
 - b) Intermediate mesoderm
 - c) Lateral plate mesoderm
 - d) Endoderm
18. Nerve of second pharyngeal arch is
 - a) Facial
 - b) Recurrent laryngeal
 - c) Internal laryngeal
 - d) Glossopharyngeal
19. Type of joint between epiphysis and diaphysis is
 - a) Fibrous
 - b) Primary cartilaginous
 - c) Secondary cartilaginous
 - d) Plane synovial
20. All are examples of portal circulation EXCEPT
 - a) Hepatic circulation
 - b) Hypophyseal circulation
 - c) Pulmonary circulation
 - d) Renal circulation

SECTION B

Marks 40

Question 2. Attempt ANY TWO case scenario questions.

16 marks

- (1) 35 years old female is injured in a vehicular accident leading to fracture of shaft of humerus. Clinical examination revealed loss of cutaneous sensations in area of anatomical snuff box, lack of sweating on the back of arm and forearm and wrist drop. (1+2+2+3 marks)
 - (A) Enumerate neuro-vascular structures most likely injured in this condition.
 - (B) Describe origin and branches of affected artery.
 - (C) Describe origin and root value of affected nerve.
 - (D) Explain anatomical basis of above clinical findings.
- (2) 40 years old male patient brought to hospital with complains of high grade fever, severe pain in eye & forehead and orbital swelling on right side. He had history of incomplete course of antibiotics given for sepsis of upper lip 1 week ago. Clinical examination revealed periorbital oedema and extraocular muscles palsy on the same side. (2+2+4 marks)
 - (A) What is the most probable diagnosis?
 - (B) Based on clinical features, enumerate the affected nerves.
 - (C) Explain anatomical basis of clinical features.

- (3) 50 years old male with known case of pituitary tumour gradually develops impaired peripheral vision in outer temporal halves of both visual fields.
(2+6 marks)
- (A) What is probable diagnosis for impaired vision?
(B) Describe various lesions associated with visual pathway.

Question 3.

- (A) **Write short notes on ... (ANY TWO)** 10 marks
- (1) Serratus anterior muscle
 - (2) Median nerve in hand
 - (3) Anastomosis around elbow joint
- (B) **Write short notes on...** 10 marks
- (1) Fertilization **OR** Chorionic villi
 - (2) Development of spinal cord **OR** Development of palate
- (C) **Write short note on.... (ANY ONE)** 4 marks
- (1) Fibrous joint
 - (2) Anastomosis

Marks 40

SECTION C

16 marks

Question 4 Long questions.... (ANY TWO)

- (1) Describe larynx as asked.
 - (a) Enumerate intrinsic muscles & describe muscle producing abduction of vocal cords.
 - (b) Laryngeal cavity
 - (c) Motor & sensory innervations
- (2) Describe submandibular gland under following heads.
 - (a) External features & relations
 - (b) Neuro-vascular supply
 - (c) Submandibular duct
- (3) Describe pterygopalatine fossa under following heads.
 - (a) Boundaries and communications
 - (b) List of contents
 - (c) Connections and branches of pterygopalatine ganglion



Question 5

(A) Write short notes on... (ANY TWO)

10 marks

- (1) Posterior spino-cerebellar tract
- (2) Fourth ventricle
- (3) Circle of Willis

(B) Write short notes on....

10 marks

- (1) Histology of spleen **OR** Histology of hyaline cartilage
- (2) Histology of thyroid gland **OR** Histology of cornea

(C) Write short note on....(ANY ONE)

4 marks

- (1) Saddle joints
- (2) Implantation
- (3) Histology of thymus