

SS/MBBS-I/ANA-I/05-22

First MBBS Supplementary Examination

2022

(May)

ANATOMY

Paper-I

Full Marks: 100

Time: 3 hours

The figures in the margin indicate

full marks for the questions

Write the answers to the two Halves in separate books

Answer all questions

FIRST HALF

1. Multiple choice questions. The following questions have four options. You are required to choose the most correct answer : $1 \times 10 = 10$

(a) Which of the following is a traction epiphysis?

(i) Tibial condyles

(ii) Trochanter of femur

(iii) Coracoid process of scapula

(iv) Head of femur

(b) All of the following statements are true for metaphysis of bone, except

(i) it is the epiphyseal end of diaphysis

(ii) growth activity is negligible here

(iii) it is highly vascular

(iv) common site of osteomyelitis in children

(c) Manubriosternal joint is

(i) primary cartilaginous

(ii) secondary cartilaginous

(iii) synovial

(iv) ellipsoid

(d) Lining epithelium of ventricles of brain:

(i) Squamous

(ii) Columnar

(iii) Cuboidal

(iv) Transitional

(e) Serous demilunes are present in large number in which gland?

(i) Parotid

(ii) Submandibular

(iii) Sublingual

(iv) Pituitary

(f) Type of cartilage seen at temporo-mandibular joint is

(i) Hyaline cartilage

(ii) Fibrocartilage

(iii) Elastic cartilage

(iv) All of the above

(g) All of the following structures pass through the carpal tunnel, except

- (i) flexor carpi ulnaris
- (ii) flexor digitorum superficialis
- (iii) flexor digitorum profundus
- (iv) flexor pollicis longus

(h) All are parts of corpus callosum, except

- (i) forceps minor
- (ii) forceps major
- (iii) tapetum
- (iv) indusium griseum

(i) The arachnoid villi responsible for cerebrospinal fluid absorption protrude mainly in the

- (i) superior sagittal sinus
- (ii) inferior sagittal sinus
- (iii) straight sinus
- (iv) transverse sinus

(j) Suture present between parietal and occipital bones is

- (i) lambdoid
- (ii) sagittal
- (iii) coronal
- (iv) metopic

2. Answer the following long answer-type questions:

(a) Describe the detail about the tongue under the following headings:

1+3+4+4+3=15

- (i) Parts of tongue
- (ii) Intrinsic and extrinsic muscles of tongue
- (iii) Nerve supply
- (iv) Microanatomy with labelled diagram
- (v) Development of tongue

(b) Discuss in detail about the fourth ventricle under the following headings:

2+5+3+3+2=15

- (i) Lateral boundaries
- (ii) Floor : parts and structures in it
- (iii) Roof : its parts and opening in the roof
- (iv) The recess
- (v) Applied anatomy

3. A patient of cerebellar lesion came to the outpatient department with dysidiadochokinesia and scanning speech. The clinician asked the patient to tap the palm of one hand with the fingers of the other, then rapidly turn over the fingers and tap the palm with the back of them, repeatedly. The physician observed that there was impaired ability to perform rapid and alternating movements. This movement is known as a pronation/supination test of the upper extremity. Answer the following questions with your knowledge of anatomy: 2+2+1+5=10

- (a) What is pronation and supination?
- (b) In which joints, pronation and supination take place?
- (c) Mention its axis of movements.
- (d) Describe the muscles involved in supination and pronation.

SECOND HALF

4. Describe the following briefly (any seven) : $5 \times 7 = 35$

- (a) Median cubital vein—its formation, termination and applied importance
- (b) Blood-brain barrier
- (c) Spermiogenesis
- (d) Microanatomy of pituitary gland
- (e) Lacrimal apparatus : its parts and applied anatomy
- (f) Floor of fourth ventricle
- (g) Erb's palsy
- (h) Klumpke's palsy

5. Answer/Explain why (any five) : $2 \times 5 = 10$

- (a) A patient with painful swelling of the palm extending up to the wrist joint gives history of recent pinprick in little finger.
- (b) Enumerate the muscles supplied by posterior interosseous nerve.
- (c) Food bolus is prevented from entry into nasopharynx and larynx in second phase of deglutition.
- (d) Why thyroid moves up and down during deglutition?
- (e) Enumerate only the structures passing through internal acoustic meatus.
- (f) The fibula violates the law of ossification.

6. AETCOM : Describe and discuss the role of physician in health-care system. 5

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