

7A. What are the surgically removable functional units of the lung called? Define them.

7B. Describe them in detail.

(1+3 = 4 marks)

8. Explain the origin, course, termination and arterial supply of esophagus. Write a note on its constrictions.

($\frac{1}{2}+1+\frac{1}{2}+1+1 = 4$ marks)

9. Describe the deep relations of parotid salivary gland. Write a note on parotid duct.

(2+2 = 4 marks)

10. Mention the peritoneal folds attached to the liver. Write a note on porta hepatis.

(1+3 = 4 marks)

11. After the surgery of the lateral wall of the nose in a young patient, an ENT surgeon observed impairment of secretion of lacrimal fluid. The doctor told his subordinate that the parasympathetic ganglion supplying the gland must have been damaged.

11A. Mention the parasympathetic ganglion supplying the lacrimal gland

11B. Explain its connections, branches and their distribution.

(1+3 = 4 marks)

12. Write short notes on:

12A. Primary motor area

12B. Medial wall of middle ear

(2+2 = 4 marks)

13. 25-year-old woman complaining of a swelling on the front of her neck and breathlessness visited her physician. The physician found that the swelling was not attached to the skin, but moved upward on swallowing. A diagnosis of adenoma of the thyroid gland was made.

13A. Explain why the tumor moved upward when the patient swallowed.

13B. What structure in the neck was being pressed on by the tumor to cause breathlessness?

13C. Describe the blood supply and development of the thyroid gland

(1+1+2 = 4 marks)

14. Mention the extent and constituents of spermatic cord. Write a note on its coverings.

(1+1 $\frac{1}{2}$ +1 $\frac{1}{2}$ = 4 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MBBS PHASE I STAGE I DEGREE EXAMINATION – AUGUST 2006

SUBJECT: ANATOMY – II (MCQs)

Saturday, August 12, 2006

Time: 1 Hour

Max. Marks: 120

INSTRUCTIONS

1. For each statement, select **T** (True) or **F** (False) as your choice.
2. Indicate your choice by darkening the appropriate circle in the answer sheet provided.
3. Use only 'BLACK PEN' to darken the circle.
4. Leave blank for Don't Know response.
5. Scoring systems is as follows:

For every Correct response	1 mark is awarded
For every Wrong response	0.5 mark is deducted
For every Don't Know response	No mark is deducted
6. Indicate your roll number (Registration Number) clearly and correctly.
7. Do not write anything in the question paper.
8. The true/false statements are numbered 101 to 160 and 201 to 260 (Total 120 statements).
9. This question paper contains **04 pages**. Please make sure that the question paper provided to you has all the pages.



Regarding the spinal nerves

101. Ventral rami of thoracic spinal nerves contain preganglionic sympathetic fibres
102. Dorsal rami of all the spinal nerves contain spinal ganglia
103. Ventral rami of cervical spinal nerves are connected to the cervical sympathetic ganglia by the grey and white rami communicantes
104. First cervical nerve comes out from the vertebral canal by passing between first and second cervical vertebrae
105. Ventral rami of 2nd, 3rd and 4th lumbar spinal nerves contain parasympathetic fibres

About the joints of upper limb

106. Wrist joint is formed between distal end of radius and carpal bones
107. Inferior radioulnar joint is supplied by the anterior and posterior interosseous nerves
108. Inferior dislocations of shoulder joint are more common than the anterior dislocations
109. Biceps brachii is responsible for the flexion at the wrist joint
110. The cavity of shoulder joint contains tendon of long head of triceps brachii

Regarding the vertebral column

111. Cervical vertebrae contain foramen transversarium in their transverse processes
112. Transverse processes of typical thoracic vertebrae contain articular facets which articulate with the heads of corresponding ribs
113. Sacral hiatus transmits filum terminale and first coccygeal nerve
114. Ala of sacrum is crossed by the obturator nerve and ilio-lumbar artery
115. Transverse processes of lumbar vertebrae give attachment to psoas major and quadratus lumborum muscles

About the muscles of mastication

116. Masseter takes origin from the zygomatic arch of temporal and zygomatic bones
117. Lateral pterygoid is situated lateral to the mandibular nerve
118. Medial pterygoid is inserted to the pterygoid fovea and articular disc of temporomandibular joint
119. Temporalis runs deep to the zygomatic arch
120. Masseter is supplied by the anterior division of mandibular nerve

About the muscles attached to the scapula

121. Deltoid is attached to the spine and acromion process of scapula
122. Trapezius is supplied by the spinal accessory and ventral rami of 3rd and 4th cervical spinal nerves
123. Infraspinatus is an abductor of shoulder joint

124. Subscapularis forms the anterior boundary of axilla along with subclavius
125. Teres major forms the lower boundary of quadrangular space of scapular region

About the intraembryonic mesoderm

126. Somatopleuric layer of intraembryonic mesoderm develops into parietal peritoneum
127. Intermediate mesoderm in the thoracic region gives rise to gonads
128. Intermediate mesoderm contains intraembryonic coelom
129. Paraxial mesoderm is divided into somites
130. Heart tube develops in the part of somatopleuric layer of intraembryonic mesoderm which lies between septum transversum and prochordal plate

About the muscles of gluteal region

131. Gluteus medius is inserted to the lateral surface of greater trochanter of femur
132. Gluteus minimus is supplied by the superior gluteal nerve
133. Piriformis enters the gluteal region by passing through the lesser sciatic foramen
134. Gluteus maximus brings about lateral rotation of hip joint
135. Superior and inferior gemelli are crossed superficially by the sciatic nerve

Right atrium

136. Is situated in front of oblique sinus of pericardial cavity
137. Receives coronary sinus and anterior cardiac veins
138. Has a rough part which contains trabeculae carneae
139. Presents crista terminalis which develops from the right venous valve of sinus venosus
140. Forms the part of sternocostal surface of the heart along with right ventricle

Cavernous sinus

141. Is situated lateral to the hypophysis cerebri and sphenoidal air sinus
142. Extends anteriorly up to the medial end of inferior orbital fissure
143. Receives superior and inferior cerebral veins from the cerebral cortex
144. Is connected to the transverse sinus by the inferior petrosal sinus
145. Contains mandibular and maxillary nerves in its lateral wall

Regarding the blood vessels of upper limb

146. Brachial artery terminates at the neck of radius by dividing into radial and ulnar arteries
147. Radial artery is accompanied by the superficial branch of radial nerve in the anterior compartment of the forearm

148. Second part of axillary artery gives thoracoacromial and subscapular arteries
149. Cephalic vein begins in the palm as a continuation of lateral end of dorsal venous arch
150. Median cubital vein is separated from the brachial artery by the bicipital aponeurosis

About the larynx

151. It extends inferiorly up to the lower border of thyroid cartilage
152. Posterior cricoarytenoid is responsible for abduction of vestibular folds
153. Anterior end of sinus of larynx extends superiorly as sacule
154. Aryepiglottic fold forms the lateral boundary of laryngeal inlet
155. Mucous membrane, above the level of vestibular fold is supplied by the internal laryngeal nerve

About the nasal cavity

156. Its medial wall contains perpendicular plate of palatine bone
157. Vestibule is lined by stratified squamous keratinized epithelium
158. Superior nasal concha is a projection of labyrinth of ethmoid bone
159. Floor is formed by the hard palate which is supplied by the greater palatine arteries
160. Inferior meatus receives the openings of lacrimal canaliculi

Regarding the small intestine

201. First part of duodenum is supplied by the superior pancreaticoduodenal artery
202. Second part of duodenum is situated behind the right kidney
203. Terminal part of ileum develops from the hind gut
204. Lamina propria of jejunum contains intestinal glands
205. Villi are prominent in the ileum

Lesser omentum

206. Is a double layered fold of parietal peritoneum
207. Forms the anterior boundary of lesser sac
208. Has a part called hepatoduodenal ligament which connects the liver to the second part of duodenum
209. Has a right free margin which contains common hepatic artery and portal vein
210. Contains right and left gastric vessels near the stomach

About the pharynx

211. Palatine tonsil is situated in the lateral wall of oropharynx
212. Muscle producing salpingopharyngeal fold is supplied by the glossopharyngeal nerve

213. Roof of the nasopharynx is formed by the body of sphenoid bone
214. Mucosa of laryngopharynx is supplied by maxillary nerve
215. Soft palate separates the oropharynx from the nasopharynx

Left kidney

216. Is situated in front of eleventh and twelfth ribs
217. Has renal pyramids, which contain glomeruli and bowman's capsules
218. Has a medial border which is related to the renal pelvis at its lower part
219. Contains collecting ducts which develop from the ureteric bud
220. Has a posterior surface which is related to the diaphragm

About the lymph nodes of the body

221. Efferents of apical group axillary lymph nodes form subclavian lymph trunk
222. Vertical group of superficial inguinal lymph nodes receive lymph from the perineum
223. Jugulo-digastric lymph nodes receive lymphatics from the tongue
224. Efferents of superficial inguinal lymph nodes pass through the femoral canal
225. Lateral (para) aortic nodes receive lymphatics from the testis

In the midbrain

226. Ventral tegmental decussation is formed by the fibres of red nucleus
227. Mesencephalic nucleus receives proprioceptive fibres from the upper limb and upper part of trunk
228. Edinger Westphal nucleus receives afferents from the pretectal nucleus
229. Efferents of trochlear nucleus supply the lateral rectus muscle
230. Fibres arising from the inferior colliculus run through the sublentiform part of internal capsule

Regarding the gyri and sulci of cerebrum

231. Posterior ramus of lateral sulcus contains middle cerebral artery
232. Walls of the lunate sulcus contain striate area
233. Lingual gyrus is supplied by the posterior cerebral artery
234. Lower part of postcentral gyrus receives afferents from ventral posterolateral nucleus of thalamus
235. Broca's motor speech area is connected to the gyri of temporal lobe by the uncinate fasciculus

About the lateral ventricle

236. Anterior horn is continuous with the central part at the interventricular foramen
237. Medial wall of the posterior horn contains tapetum

- 238. Stria terminalis runs in the roof of inferior horn
- 239. Choroid plexus of inferior horn is supplied by the anterior choroidal artery
- 240. Medial wall of the central part is formed by the body of fornix

Femoral nerve

- 241. Is formed by the ventral rami of L1, L2 and L3 spinal nerves
- 242. Runs deep to the cecum in the iliac fossa
- 243. Enters the medial compartment of thigh by passing deep to the inguinal ligament
- 244. Has an anterior division which supplies the sartorius muscle
- 245. Has a posterior division which gives saphenous nerve

About the suprarenal glands

- 246. They are surrounded by the superior extension of renal capsule
- 247. Right suprarenal gland is situated behind the right lobe of liver
- 248. Anterior surface of left suprarenal gland is related to the pancreas
- 249. Left suprarenal vein terminates into the left gonadal vein
- 250. Zona glomerulosa of the cortex develops from the mesoderm

About the mammary gland

- 251. It is situated anterior to pectoralis major and external oblique muscles
- 252. It develops from the ectoderm
- 253. Lymphatics from the lateral quadrants drain into superficial inguinal lymph nodes
- 254. Lymphatics from the medial quadrants communicate with those of opposite gland
- 255. Superficial lymphatics drain the nipple and areola

Deep perineal pouch in males

- 256. Is limited laterally by the ischial tuberosities
- 257. Is separated from the superficial perineal pouch by the perineal membrane
- 258. Is continuous anteriorly with the spaces of scrotum and penis
- 259. Contains membranous part of urethra which is surrounded by the sphincter urethrae muscle
- 260. Contains internal pudendal artery which originates from the posterior division of internal iliac artery