Reg. No.										

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

MBBS PHASE I STAGE I DEGREE EXAMINATION – FEBRUARY 2007

SUBJECT: ANATOMY – I (ESSAY)

Monday, February 12, 2007

Time: 2 Hours | Max. Marks: 60

- **Answer ALL questions.**
- **Write brief, relevant and legible answers.**
- **Draw diagram, flow charts wherever appropriate.**

1. Explain the typical spinal nerve with the help of a diagram.

(5 marks)

2. What is the commonest direction of shoulder dislocation? Which is the nerve endangered in this type of dislocation? Mention the movements and muscles producing each of the movements at the shoulder joint.

(1+1+3 = 5 marks)

3. Name the hamstring muscles. Explain the attachments, nerve supply and actions of any two of them.

(1+2+1+1 = 5 marks)

4. Write a note on corpus luteum.

(5 marks)

5. A young woman presented to a vascular surgeon with a series of dilated tortuous veins in her right leg. The rest of her leg was otherwise normal.

5A. What are such large dilated tortuous veins called?

5B. Name the superficial veins of the lower limb.

5C. Describe the mechanism of venous drainage of the lower limb and explain in which condition the veins of the leg become large, dilated and tortuous.

(½+1+2½ = 4 marks)

6. Write a note on the internal features of the right atrium.

(4 marks)

7. After a thyroidectomy, a patient spoke with a husky voice. It was later known that one of the motor nerves of larynx was involved. Name the motor nerves of larynx and mention the arteries to which they are closely related. Explain the internal features of larynx.

(2+2 = 4 marks)

8. A radiograph of a 32-year-old woman reveals a perforation in the posterior wall of the stomach from which the gastric contents have spilled into the lesser sac. The surgeon opened the gastrosplenic ligament to reach the lesser sac and accidentally cut a large artery.

8A. Name the artery which was damaged. Mention its origin and distribution.

8B. What are the structures forming the posterior boundary of lesser sac?

8C. In which margin of the lesser sac is the gastrosplenic ligament situated?

(1+2+1 = 4 marks)

9. Explain the relations, blood supply and development of anal canal.

(2+1+1 = 4 marks)

10. Write a note on the relations of urinary bladder in male. Mention the developmental components of bladder.

(3+1 = 4 marks)

11. A schoolboy fell down and got a deep wound behind the medial epicondyle of humerus. Following this, he lost sensations from the palmar and dorsal aspects of medial one and a half fingers. He could not grip a paper between little finger and ring finger. Name the nerve that has got injured. Explain its distribution in the hand.

(1+3 = 4 marks)

12. Write a note on relations and blood supply of internal capsule. Mention two conditions that could arise from a vascular lesion in the posterior limb of internal capsule.

(1+2+1 = 4 marks)

13. Explain the histology of thyroid and parathyroid glands with the help of a labeled diagram.

(4 marks)

14. Mention the coverings of the testis. Write a note on its blood supply and lymphatic drainage.

(1+2+1 = 4 marks)

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MANIPAL ACADEMY OF HIGHER EDUCATION

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MBBS PHASE I STAGE I DEGREE EXAMINATION – FEBRUARY 2007

SUBJECT: ANATOMY – II (MCQs)

Monday, February 12, 2007

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 HB or 2B pencils 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 **03 pages**. Please make sure that the question paper provided to you has all the pages.

Regarding the bones

101. Compact bones contain Haversian canals
102. Long bones have epiphysial cartilage, which is a hyaline cartilage
103. Patella is an example for short bones
104. Osteocytes are the bone destructing cells
105. Most of the bones in the body are avascular

Hip joint

106. Is a ball and socket type of synovial joint
107. Is formed between head of the femur and the acetabular notch
108. Is flexed by iliacus and psoas major muscles
109. Commonly dislocates in anterior direction
110. Is abducted by gluteus medius muscle

About the joints in the upper limb

111. Elbow joint is flexed by biceps and brachialis muscles
112. Pronation and supinations occur at the wrist joint
113. Superior and inferior radioulnar joints are pivot type of synovial joints
114. Flexion and extensions are the only movements possible at interphalangeal joints
115. First carpometacarpal joint is a hinge joint

Deltoid

116. Takes origin from clavicle and scapula
117. Is inserted to the deltoid tuberosity of the humerus
118. Is the muscle of choice for administering intramuscular injections
119. Helps in flexion, extension and adduction of the shoulder joint
120. Is supplied by a branch of medial cord of brachial plexus

Sternocleidomastoid

121. Moves the face to the opposite side
122. Is supplied by cranial part of the accessory nerve
123. Forms the anterior boundary of posterior triangle of the neck
124. Is inserted to the anterior surface of the manubrium sterni
125. When paralyzed, results in a condition called wry neck/torticollis

About the muscles of the leg

126. Tibialis anterior inverts the foot
127. Peroneus longus and brevis muscles are supplied by superficial peroneal nerve
128. Paralysis of muscles of the posterior compartment results in foot drop
129. Soleus and gastrocnemius join to form tendocalcaneus
130. Popliteus is the muscle that locks the knee joint

About the Graafian follicle

131. It is also called secondary follicle
132. It is found in the cortex of the ovary
133. Zona pellucida lies between theca externa and theca interna
134. Theca externa secretes estrogen
135. Follicular antrum is surrounded by membrana granulosa

External carotid artery

136. Starts at the level of hyoid bone
137. Ends by dividing into maxillary and superficial temporal arteries
138. Supplies thyroid gland and tongue through its branches
139. Is surrounded by carotid sheath
140. Lies deep to facial nerve in the parotid gland

Inferior vena cava

141. Is formed by the union of two common iliac veins at the level of L5 vertebra
142. Terminates by opening into the rough part of right atrium
143. Is a posterior relation of the liver
144. Receives both right and left renal veins
145. Passes through vena caval opening of diaphragm, which is at the level of tenth thoracic vertebra

About the cerebral arteries

146. Anterior cerebral artery is a branch of basilar artery
147. Thrombosis of middle cerebral artery results in homonymous hemianopia
148. Posterior cerebral artery is a terminal branch of internal carotid artery
149. Middle cerebral artery lies in the lateral sulcus
150. Anterior, middle and posterior cerebral arteries are involved in the formation of the circle of Willis

Left lung has

151. Eparterial and hyparterial bronchi in its hilum
152. Two pulmonary veins, which drain into the left atrium
153. A part called lingula on its inferior lobe
154. An apex, which is related to the suprapleural membrane
155. A mediastinal surface, which is related to the arch of azygos vein

About the lateral wall of the nose

156. Presents conchae, which are independent bones of the skull
157. Superior meatus receives the opening of sphenoidal air sinus
158. Inferior meatus has a cresentic opening called hiatus semilunaris
159. Middle meatus has an elevation called bulla ethmoidalis
160. Maxillary sinus opens into hiatus semilunaris

Lesser omentum

201. Forms anterior boundary of the lesser sac
202. Contains left and right gastric vessels
203. Is attached to the liver and stomach
204. Develops from dorsal mesogastrium
205. Has a free margin which contains bile duct

Vermiform appendix

206. Is a part of small intestine
207. Has Peyer's patches in its submucosa
208. Develops from post arterial segment of midgut loop
209. Is suspended by mesoappendix, which contains the blood vessels of appendix
210. Has a base, which corresponds to Mc Burney's point

About the pharynx

211. Nasopharynx communicates with oropharynx through pharyngeal isthmus
212. Oropharynx contains palatine tonsil in its lateral wall
213. Laryngopharynx continues as esophagus at the level of C5 vertebra
214. Muscles of pharynx are supplied by pharyngeal plexus and glossopharyngeal nerve
215. Piriform fossa is closely related to internal carotid artery

The liver

216. Has a fossa for gall bladder on the inferior surface of the right lobe
217. Is situated in the right hypochondrium and epigastrium
218. Has a bare area, the base of which is formed by the abdominal aorta
219. Receives the blood from portal vein and hepatic artery
220. Has a fissure for ligamentum teres between its right and left lobes

The ureter

221. Is lined by transitional epithelium
222. Terminates by opening into the urinary bladder through its superior surface
223. Lies anterior to the psoas major muscle
224. When blocked by a calculus, pain radiates from loin to groin
225. Develops from ureteric bud of mesonephric duct

About the tracts of spinal cord

226. Corticospinal tract contains upper motor neurons
227. Lateral spinothalamic tract carries pain and temperature sensations
228. Fasciculus gracilis and fasciculus cuneatus cross to the opposite side in the spinal cord
229. Rubrospinal tract lies in the anterior funiculus
230. Dorsal spinocerebellar tract enters the cerebellum through inferior cerebellar peduncle

Corpus callosum

231. Is made up of commissural fibres
232. Has a part called genu, which forms the roof of anterior horn of lateral ventricle
233. Has a part called splenium, fibres of which form forceps minor
234. Has a trunk, which forms the roof of the third ventricle
235. When injured, leads to contralateral hemiplegia

Regarding the cerebrum

236. Pars triangularis of inferior frontal gyrus is auditory in function
237. Postcentral gyrus contains Brodmann's area 3,1,2
238. Paracentral lobule is supplied by anterior cerebral artery
239. Occipital pole is visual in function
240. Central sulcus separates frontal lobe from parietal lobe

About the cerebellum

241. It is supplied by branches of vertebral and basilar arteries
242. Archicerebellum consists of lingula and flocculonodular lobe
243. Paleocerebellum is mainly connected to vestibular nuclei
244. Function of the neocerebellum is coordination of movements
245. Afferents of cerebellum end mainly in the dentate nucleus

The pituitary gland

246. Is situated in the sella turcica, which is a depression in the body of the sphenoid bone
247. Lies below optic chiasma
248. Lies above the sphenoidal air sinuses
249. Has a part called adenohypophysis, which develops from a down growth of diencephalon
250. Has a posterior lobe, which is connected to the hypothalamus through hypothalamo-hypophysial portal system

Uterus

251. Has an angle of anteflexion between cervix and vagina
252. Has a cervix, which is surrounded by vaginal fornices
253. Is supported by pelvic diaphragm and urogenital diaphragm
254. Has a mucosa, which undergoes cyclic changes
255. Develops from paramesonephric ducts

Prostate gland

256. Has a base, which is related to the neck of the urinary bladder
257. Has an apex, which is related to the urogenital diaphragm
258. Contains urethra, which receives the openings of ejaculatory ducts
259. Has a median lobe, which is common site of carcinoma
260. Has a posterior lobe, which produces uvula vesicae