Reg. No.		

MANIPAL UNIVERSITY

MELAKA MANIPAL MEDICAL COLLEGE (MANIPAL CAMPUS)

MBBS PHASE - I STAGE - I DEGREE EXAMINATION - MARCH 2017

SUBJECT: ANATOMY - PAPER I (ESSAY)

Monday, March 13, 2017

Time: 9.00 - 11.00 Hrs.

Max. Marks: 60

1. Describe the microscopic structure of lymph node.

(5 marks)

- 2A. Mention the type and subtype of hip joint.
- 2B. Mention the movements taking place at the hip joint.
- 2C. Name any one muscle responsible for each of the movements taking place at the hip joint.

(1+2+2=5 marks)

- 3. A man met with an automobile accident and was brought to the casualty department of a hospital. On examination, it was found that his left shoulder joint was dislocated.
- 3A. What is the commonest direction of shoulder joint dislocation? Name the nerve that is related to the surgical neck of the humerus and likely to be injured during such dislocations of the shoulder joint.
- 3B. Name the muscles supplied by that nerve.
- 3C. Mention the actions of one of the muscles supplied by that nerve.

(2+2+1=5 marks)

4. Describe the structure of a Graafian follicle.

(5 marks)

5. Mention the origin and termination of external carotid artery. Name any four of its branches.

(1+1+2=4 marks)

6. Mention the formation, course, termination and any two tributaries of portal vein.

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

7. Mention the major bones forming the nasal septum. Name **any two** arteries and **two** nerves supplying nasal septum.

(2+1+1 = 4 marks)

8. Name the parts of the stomach. Mention the structures forming posterior relations of the stomach. Name any two arteries supplying the stomach.

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

9. Mention the different probable positions of vermiform appendix. Give its arterial supply.

(3 + 1 = 4 marks)

- 10. A 55 year-old woman was found rolling on her kitchen floor, crying out from agonizing pain in her abdomen. The pain came in waves and extended from the right loin to the groin and to the front of her right thigh. A radiograph of the abdomen revealed a calculus in the right ureter.
- 10A. Where along the ureter is a calculus likely to be held up?
- 10B. Why is the pain felt in such an extensive area?
- 10C. Name the type of epithelium which lines the ureter.
- 10D. Mention the development of the ureter.

(1+1+1+1=4 marks)

11. Describe the floor of the fourth ventricle of the brain

(4 marks)

- 12A. Mention the relations and arterial supply of posterior limb of the internal capsule.
- 12B. Name any two bundles of nerve fibers present in the posterior limb of internal capsule.
- 12C. Mention any two clinical conditions resulting from lesion of the posterior limb of internal capsule.

(2+1+1=4 marks)

13. On examination, a patient is found to have bitemporal hemianopia.

Enlargement of which gland is likely to compress the optic chiasma and cause this condition?

Mention the parts and relations of that gland.

(1+1+2=4 marks)

14. What is the normal anatomical position of uterus? Mention the parts and arterial supply of uterus. (2+1+1=4 marks)

Reg. No.

MANIPAL UNIVERSITY

MELAKA MANIPAL MEDICAL COLLEGE (MANIPAL CAMPUS)
MBBS PHASE – I STAGE – I DEGREE EXAMINATION – MARCH 2017
SUBJECT: ANATOMY – PAPER II (MTF)

Monday, March 13, 2017

Time: 11.30 - 12.30 Hrs.

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 **04 pages**. Please make sure that the question paper provided to you has all the pages.

About the epithelium

- 101. Simple squamous epithelium lines the blood vessels
- 102. Pseudostratified epithelium has large pear shaped cells
- 103. Stratified squamous epithelium lines the esophagus
- 104. A compound epithelium consists of a single layer of cells
- 105. The transitional epithelium lines the gall bladder

About muscle tissue

- 106. Skeletal muscle fibers are striated
- 107. Cardiac muscle fibers are multicellular
- 108. Skeletal muscle fibers are supplied by autonomic nerves
- 109. Smooth muscle cells are spindle shaped
- 110. Cardiac muscle fibres are striated and involuntary

Regarding the bones of lower limb

- 111. Anterior superior iliac spine gives attachment to the sartorius muscle
- 112. Lesser trochanter of femur gives insertion to iliopsoas tendon
- 113. Ligamentum patellae is attached to the tibial tuberosity
- 114. Femur, tibia and patella articulate at knee joint
- 115. Talus articulates with tibia

Regarding the muscles of the neck

- 116. Infrahyoid muscles are supplied by the ansa cervicalis
- 117. Scalenus anterior muscle lies behind the subclavian artery
- 118. Sternocleidomastoid muscle is supplied by the spinal part of accessary nerve
- 119. Posterior belly of digastric muscle is supplied by the mandibular nerve
- 120. Anterior belly of digastric muscle develops from 1st pharyngeal arch

Muscles supplied by musculocutaneous nerve include

- 121. Biceps brachii
- 122. Brachialis
- 123. Flexor digitorum superficialis

- 124. Serratus anterior
- 125. Triceps brachii

The hamstring muscles

- 126. Take origin from sacrum
- 127. Are inserted to one of the bones of the leg
- 128. Flex the hip joint
- 129. Extend the knee joint
- 130. Are supplied by tibial component (part) of sciatic nerve

Structures derived from the mesoderm include

- 131. Spinal cord
- 132. Neural tube
- 133. Vertebrae
- 134. Dermis of skin
- 135. Visceral layer of peritoneum

Branches of basilar artery include

- 136. Posterior inferior cerebellar
- 137. Labyrinthine (internal acoustic)
- 138. Anterior spinal
- 139. Posterior communicating
- 140. Posterior cerebral

About the arteries

- 141. Brachiocephalic trunk is a branch of ascending aorta
- 142. Inferior mesenteric artery continues as superior rectal artery
- 143. Brachial artery is a continuation of axillary artery
- 144. Internal carotid artery is seen within the carotid sheath
- 145. Vertebral artery is a branch of subclavian artery

The contents of posterior mediastinum of the thorax include

- 146. Thoracic duct
- 147. Esophagus
- 148. Azygos vein
- 149. Arch of aorta
- 150. Left recurrent laryngeal nerve

About the diaphragm

- 151. Its right crus is attached to upper three lumbar vertebrae
- 152. Its esophageal opening is present at the level of 8th thoracic vertebra
- 153. Thoracic duct passes through its aortic opening
- 154. It is supplied by phrenic nerves
- 155. Its vena caval opening transmits superior vena cava

About the larynx

- 156. Its walls are supported by cartilages
- 157. Its posterior cricoarytenoid muscle is supplied by recurrent laryngeal nerve
- 158. Its sinus lies above the vestibular fold
- 159. Its vocal cords are tensed by the cricothryroid muscles
- 160. Its supraglottic part is supplied by the internal laryngeal nerves

About the parotid gland

- 201. Investing layer of deep cervical fascia forms one of its capsules
- 202. Facial nerve is one of the intraparotid structures
- 203. It is a serous salivary gland
- 204. It derives its parasympathetic nerve supply from the otic ganglion
- 205. Its duct opens into the vestibule of the mouth

About the small intestine

- 206. First part of duodenum develops from the foregut
- 207. Second part of the duodenum has the opening of hepatopancreatic ampulla
- 208. Jejunum is supplied by branches of superior mesenteric artery
- 209. Ileum has Peyer's patches in its wall
- 210. Brunner's glands are found in the duodenal wall

About the tongue

- 211. Unilateral paralysis of its muscles causes deviation of its tip to the affected side on protrusion
- 212. Anterior 2/3rd of its dorsum is supplied by lingual nerve

- 213. Its genioglossus muscle is supplied by hypoglossal nerve
- 214. Circumvallate papillae are found on the posterior 1/3rd of its dorsum
- 215. Lingual tonsil is located in the anterior 2/3rd of its dorsum

About the right kidney

- 216. It lies behind the right lobe of the liver
- 217. Its hilum transmits renal pelvis
- 218. It is related to the duodenum
- 219. It is supplied by renal artery
- 220. Glomeruli are present in its cortex

Structures related to the visceral surface of the liver include

- 221. Stomach
- 222. Right colic flexure
- 223. Spleen
- 224. Diaphragm
- 225. Gall bladder

Branches of the posterior cord of brachial plexus include

- 226. Median nerve
- 227. Musculocutaneous nerve
- 228. Ulnar nerve
- 229. Radial nerve
- 230. Subscapular nerves

The nuclei present in the medulla oblongata include

- 231. Nucleus ambiguus
- 232. Red nucleus
- 233. Spinal nucleus of trigeminal nerve
- 234. Abducent nucleus
- 235. Facial nucleus

Features on the medial wall of the middle ear include

- 236. Promontory
- 237. Pyramid
- 238. Oval window
- 239. Tympanic plexus
- 240. Tympanic membrane

About the cerebrum

- 241. Lesion of its Broca's area leads to motor aphasia
- 242. Its postcentral gyrus has Brodmann's area 3, 1, 2
- 243. Lower part of its precentral gyrus is supplied by anterior cerebral artery
- 244. Its lingual gyrus is concerned with vision
- 245. Its central sulcus separates the motor and somatosensory areas

About the thyroid gland

- 246. Medial surface of its lobe is related to the recurrent laryngeal nerve
- 247. It is covered by the pretracheal fascia
- 248. Its lobe is related to the trachea
- 249. Its follicles are lined by cuboidal epithelium
- 250. It is supplied by superior thyroid artery

About the male reproductive organs

- 251. Testis is supplied by a branch of abdominal aorta
- 252. Vas deferens begins as a continuation of tail of epididymis
- 253. Lobules of testis contain seminiferous tubules
- 254. Corpus cavernosum of penis contains penile part of urethra
- 255. Testis is covered by tunica vaginalis

About the prostate gland

- 256. Its veins communicate with vertebral venous plexus
- 257. It lies in front of the rectum
- 258. It is related to the urinary bladder
- 259. It is traversed by urethra
- 260. It has a median lobe forming uvula vesicae