

# MANIPAL UNIVERSITY

## MBBS PHASE I STAGE I DEGREE EXAMINATION – AUGUST 2007

### SUBJECT: ANATOMY – I (ESSAY)

Saturday, August 11, 2007

Time: 2 Hours

Max. Marks: 60

Answer ALL questions.

Write brief, relevant and legible answers.

Draw diagram, flow charts wherever appropriate.

A patient was placed in the supine position with the hip and knee joints extended. The patient was asked to abduct the lower limb against resistance.

1. List the muscles tested in this patient.

2. Describe the origin, insertion, nerve supply and actions of those muscles.

(1+4 = 5 marks)

Write short notes on:

1. Cardiac muscle.

2. Elastic cartilage.



(2½+2½ = 5 marks)

1. What are the derivatives of second pharyngeal arch?

2. Write a note on blastocyst.

(2½+2½ = 5 marks)

Describe the shoulder joint under following headings:

1. Movements and muscles responsible for the movements.

2. Rotator cuff.

(3+2 = 5 marks)

A 40-year-old woman was admitted to the hospital. She had analgesia and thermoanesthesia on medial side of left hand. On physical examination, she was found to have considerably reduced pain and temperature sense involving the eighth cervical and first thoracic dermatomes of the left hand. Examination of right hand also showed similar symptoms on the same areas. However, her sense of tactile discrimination was normal in these areas.

1. Name the disease that could be responsible for these findings.

2. What are the tracts affected in this patient? Write a note on any one of them.

(½+½+3 = 4 marks)

6. Write short notes on:
- 6A. Primary motor area.
- 6B. Archicerebellum.
- (2+2 = 4 marks)
7. Write a note on the arterial circle situated in the interpeduncular cistern.
- (4 marks)
8. After several attempts during the withdrawal of venous blood at the cubital fossa, the medical intern finally was able to penetrate a blood vessel. But the blood aspirated was bright red in colour. Using your knowledge of anatomy mention the blood vessel which was penetrated. Write a note on that blood vessel.
- ( $\frac{1}{2}+3\frac{1}{2}$  = 4 marks)
9. Where is the urinary bladder situated? Write a note on its relations.
- ( $\frac{1}{2}+3\frac{1}{2}$  = 4 marks)
10. A mass was identified in a 45-year-old man during a CT scanning of the abdomen. It was indenting the inferior vena cava from the posterior aspect. The mass also pushed the kidney inferiorly and it was touching the inferior surface of liver. The patient had moon-shaped face and truncal obesity. What structure was it? Write a note its microscopic structure with the help of a diagram.
- ( $\frac{1}{2}+3\frac{1}{2}$  = 4 marks)
11. Describe the features of interior of larynx. Add a note on its nerve supply.
- (3+1 = 4 marks)
12. What are the different layers of scrotum? Write a note on blood supply, nerve supply and development of scrotum.
- (1+1+1+1 = 4 marks)
13. Write short notes on:
- 13A. Epiploic foramen.
- 13B. Parotid duct.
- (2+2 = 4 marks)
14. Describe the relations of caecum. Write a note on iliocaecal orifice.
- (2+2 = 4 marks)



Reg. No.

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# MANIPAL UNIVERSITY

MBBS PHASE I STAGE I DEGREE EXAMINATION – AUGUST 2007

SUBJECT: ANATOMY – II (MCQs)

Saturday, August 11, 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 <b>Correct</b> response	<b>1</b> mark is awarded
For every <b>Wrong</b> response	<b>0.5</b> mark is deducted
For every <b>Don't Know</b> response	<b>No</b> 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 typical synovial joint

101. Articular cartilage lining the articular surface is usually made up of white fibro cartilage
102. Synovial membrane lines the inner surface of fibrous capsule
103. Synovial fluid lubricates and provides nourishment to the articular surfaces
104. Fibrous capsule prevents dislocation of articular surfaces and contains receptors of proprioceptive sensation
105. Synovial pads divide the joint cavity into compartments

### About the skull and mandible

106. Medial pterygoid plate gives attachment to medial pterygoid muscle
107. Trapezius and sternocleidomastoid muscles are attached to the superior nuchal line
108. Petrous part of temporal bone contains carotid canal, inner ear and tympanic cavity
109. Stylomandibular ligament is attached to the lingula of the mandible
110. Angle between ramus and body of mandible is increased in the old age

### Regarding the hip joint

111. Iliofemoral ligament connects the anterior inferior iliac spine of hip bone to the intertrochanteric crest of femur
112. Articular cartilage covers the head and neck of femur
113. Leg is shortened during the dislocations of hip joint due to the hamstring muscles
114. Flexion is produced by the iliopsoas and vasti muscles
115. Gamelli muscles are situated behind the joint and they are responsible for lateral rotation

### About the muscles of thigh

116. Short head of biceps femoris is attached to the medial lip of linea aspera
117. Medial boundary of femoral triangle is formed by the sartorius muscle which is supplied by the femoral nerve
118. Posterior wall of adductor canal is formed by adductor longus muscle which is supplied by the anterior division of obturator nerve
119. Semitendinosus forms the medial boundary of popliteal fossa and brings about extension of hip joint
120. Semimembranosus is attached to the posterior surface of medial condyle of femur

### About the muscles of forearm

121. Brachioradialis forms the lateral boundary of cubital fossa and it lies superficial to radial artery
122. Extensor digitorum and extensor digiti minimi muscles take origin from the medial epicondyle of humerus
123. Flexor pollicis longus and flexor digitorum profundus are supplied by the anterior interosseous nerve
124. Tendons of flexor digitorum superficialis give origin to lumbricals of hand
125. Tendons of abductor pollicis longus and extensor pollicis longus run together while passing deep to the extensor retinaculum

### About the muscles of neck

126. Sternocleidomastoid muscle forms the posterior boundary of digastric triangle and is supplied by the spinal accessory nerve
127. During wry neck one of sternocleidomastoid muscles is shortened and the face is directed to the opposite side
128. Anterior belly of digastric muscle is attached to the digastric fossa of mandible and is supplied by the nerve to mylohyoid
129. Scalenus anterior and medius muscles are attached to the superior surface of first rib
130. Digastric muscle brings about depression of mandible and is a derivative of mesoderm of first and second pharyngeal arches

### About the development of placenta

131. The trabeculae are made up of syncytiotrophoblast and they are surrounded by lacunae
132. Primary chorionic villi contain syncytiotrophoblast and cytotrophoblast
133. Branches of tertiary chorionic villi occupy the intervillous space
134. Chorionic villi at the decidua basalis are rudimentary
135. At the eighth month of intrauterine life placental membrane is made up of syncytiotrophoblast, cytotrophoblast and extraembryonic mesodermal layers

### About the carotid arteries

136. Left common carotid artery arises from the aortic arch in the middle mediastinum
137. Right common carotid artery ascends medial to internal jugular vein and terminates at the upper border of hyoid bone
138. External carotid artery develops from the cranial part of dorsal aorta
139. Internal carotid artery gives branches to the middle ear, internal ear and pituitary gland
140. Internal carotid artery gives ophthalmic and posterior communicating arteries in the cranial cavity