

Question Paper

Exam Date & Time: 23-Jul-2024 (10:20 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION
FIRST PROFESSIONAL YEAR MBBS DEGREE EXAMINATION - JULY 2024
SUBJECT: ANATOMY - PAPER - I
(CBME BATCH)

Marks: 80

Duration: 160 mins.

Answer all the questions.

Write brief, clear, relevant and legible answers.

Illustrate your answers with diagrams and flow-charts wherever appropriate.

1. A football player suffered a fractured head and neck of fibula on the right side. He was unable to dorsiflex and evert his right foot. All cutaneous sensations over dorsum of foot were lost except over medial border.
 - 1A) Name the structure involved, mention its origin and root value. (2)
 - 1B) Describe its course and name its terminal branches. (2)
 - 1C) Mention the motor and sensory distribution of its terminal branches. (5)
 - 1D) Give anatomical rationale for cutaneous sensation preserved over medial border of dorsum of foot. (1)

2. A diabetic patient had severe chest pain radiating to the inner aspect of the left arm, associated with sweating. Angiography showed blockage of an artery present in anterior atrioventricular groove and was accompanied by the small cardiac vein.
 - 2A) What is the condition called? (1)
 - 2B) Justify the radiation of pain to the left arm? (1)
 - 2C) Describe the origin, course, and branches of the involved structure (5)
 - 2D) Describe the 'crux of heart', with a note on coronary dominance (3)

3. **Write Short Notes on**
 - 3A) Describe the blood supply of long bone. (4)
 - 3B) Describe the formation and fate of Somites. (4)
 - 3C) Describe the histological feature of hemolymphoid organ related to the fundus of stomach. (4)
 - 3D) Describe the microanatomy of ganglion present in the dorsal root of spinal nerve. (4)
 - 3E) After a sharp knife injury over the medial aspect of flexor retinaculum, the patient presented with paralysis of all muscles of hand, except the thenar muscles and 1st & 2nd lumbricals. Name the structure involved and mention its root value. Describe its distribution in hand. (4)
 - 3F) Describe the boundaries of triangular fossa present in front of the elbow region. List its contents. (4)

- 3G) A cricketer had 'frozen shoulder' injury and his movements at the joint were restricted. Tabulate any four movements, with the muscles causing the respective movements at this joint. (4)
- 3H) After reduction of the dislocated temporomandibular joint, the patient had difficulty in opening his mouth. Describe the origin, insertion and nerve supply of the muscle affected. (4)
- 3I) Describe the boundaries and contents of the canal situated above and parallel to the medial half of inguinal ligament. (4)
- 3J) Chest X-ray of 48-year-old smoker showed the fluid collection in the most dependent part of pleural cavity in the standing position. Name and describe the space affected. (4)
- 3K) Describe the wall of the nasal cavity, where all paranasal air sinuses open. (4)
- 3L) A bus conductor presented with a tortuous and dilated vein on the medial side of his leg. The tourniquet test was positive, and it showed the incompetency of one of its perforators. Name the affected structure and mention its formation, termination and tributaries. (4)
- 3M) A COVID affected patient developed pneumonia as complication. Describe the microanatomy of affected viscera. (4)
- 3N) Abdominal contents protruded into thorax, compressing the thoracic viscera in a newborn infant. Name the condition. Describe the development of malformed structure. (4)
- 3O) Describe the role of human cadaver as first teacher in learning anatomy. (4)

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Question Paper

Exam Date & Time: 25-Jul-2024 (10:20 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION
FIRST PROFESSIONAL YEAR MBBS DEGREE EXAMINATION - JULY 2024
SUBJECT: ANATOMY - PAPER - II
(PY - 1 CBME SCHEME)

Marks: 80

Duration: 160 mins.

All questions are Compulsory.

Write brief, clear, relevant and legible answers.

Illustrate your answers with diagrams and flow-charts wherever appropriate.

1. A middle-aged man presented with weakness of right -sided face, drooping of saliva from angle of mouth and food accumulating in his vestibule of mouth while eating, inability to close his right eye & tears flowing on the cheek. On examination there was loss of horizontal wrinkles on the face, loss of taste sensation in the anterior 2/3rd of tongue on right side. Analyze the case and answer the following questions:
 - 1A) Name the structure involved. (1)
 - 1B) Draw a neat label diagram of cross section of the brain stem, at the level where the nuclei of the affected structure is situated. (4)
 - 1C) Name the branches of the affected structure in face (2)
 - 1D) Give the anatomical rationale for his symptoms (3)

2. A patient complains of loss of appetite, weight loss and progressive jaundice since six months. Ultrasound revealed a retroperitoneal glandular mass along the C shaped curvature of duodenum causing obstruction to the duct which passes behind the affected part of the organ. His blood serum amylase value was four times more than normal value.
 - 2A) Name the organ involved and mention its parts. (3)
 - 2B) Describe the relations of affected part of the organ (4)
 - 2C) What is the anatomical basis for progressive jaundice? (1)
 - 2D) Add a note on development of affected gland (2)

3. **Write Short Notes on**
 - 3A) A 17-year-old boy presented with acute abdominal pain and fever. Initially the pain was in the umbilical region, later localized to McBurney's point. Name the affected organ and mention its various positions. What is McBurney's point? (4)
 - 3B) A patient complains of blood-stained stools since few months. The proctoscopy examination revealed prolapsed internal hemorrhoids above the pectinate line. Describe the interior of organ Involved (4)

- 3C) The hilum of a retroperitoneal organ which filters blood is related to the second part of duodenum anteriorly. Illustrate the posterior relations of the organ with a neat, labelled diagram. (4)
- 3D) A 35-year-old man experienced very severe pain from the loin to groin. Ultrasonography revealed stone at one of its constrictions. Explain the microscopic feature of the structure involved. (4)
- 3E) List the mesodermal derivatives of 2nd pharyngeal arch. (4)
- 3F) The fracture base of skull was diagnosed in a patient after a road traffic accident. After few days the patient developed pulsating exophthalmos, ophthalmoplegia and a carotid bruit was heard. Name the structure involved. Mention its tributaries and communications. (4)
- 3G) Describe the floor of fourth ventricle of the brain. (4)
- 3H) In a long-standing case of Bell's palsy, a patient used artificial tear drops to protect his cornea from drying. Name the system concerned in the production and drainage of tears. Add a note on its components. (4)
- 3I) Illustrate the microscopic structure of the nervous coat of eyeball. (4)
- 3J) A young lady with massive swelling in the midline of neck presented with dyspnea, dysphagia and hoarseness of voice. The swelling was moving with deglutition. Rationale her symptoms with medial relations of the affected organ. Mention the blood supply of this organ. (4)
- 3K) A young adult presented with bilateral scrotal swelling. After examination it is confirmed to be hydrocele. Name the organ involved. Name its coverings and blood supply. (4)
- 3L) Describe the microanatomical features of female gonad with a suitable diagram. (4)
- 3M) Internal trigone of urinary bladder is derived from the absorption of these ducts. List the other derivatives of this duct. (4)
- 3N) Describe the karyotyping procedure. (4)
- 3O) Enumerate the professional qualities of a physician. (4)

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