

UNIVERSITY OF JAFFNA, SRILANKA
FIRST EXAMINATION FOR MEDICAL DEGREES –MARCH 2013
ANATOMY - PAPER II (New syllabus)

Date :18.03.2013

Time : 3 hours

Answer all TEN questions

Answer EACH PART in separate answer books

Part A

1. A 55 year old man presented with difficulty in breathing and severe pain on anterior aspect of right chest. The pain was radiating down to anterior abdominal wall. X-ray of chest confirmed the presence of fluid in the pleural cavity
 - 1.1 What is the clinical terminology for fluid in the pleural cavity? (05 Marks)
 - 1.2 Write the various parts of parietal pleura and their nerve supply (30 Marks)
 - 1.3 Explain the radiation of pain to anterior abdominal wall (35 Marks)
 - 1.4 Compare and contrast the microscopic features of main bronchi and bronchioles (30 Marks)

2. Briefly describe the
 - 2.1 Gross anatomy of the ovary (50 Marks)
 - 2.2 Microscopic anatomy of prostate gland (30 Marks)
 - 2.3 Write notes on the structural chromosomal abnormalities (20 Marks)

Part B

3. A 70 year old woman was brought to the hospital after a fall in the kitchen. She was unable to move her left lower limb and when she attempted to do so, she experienced severe pain. On examination, the left hip region was tender and left limb was deformed. Radiological examination revealed a fracture in the femoral neck
 - 3.1 What is the deformity observed in the lower limb of this patient? (10 Marks)
 - 3.2 Draw a line diagram of a longitudinal section of a long bone and label it (30 Marks)
 - 3.3 Discuss the importance of epiphyseal plate in growth of long bones (20 Marks)
 - 3.4 What are the types of femoral neck fractures (25 Marks)
 - 3.5 Describe on anatomical basis, why avascular necrosis is one of the complications in some types of fractures mentioned in 3.4 (15 Marks)

4. A 52 year old man was brought to surgical casualty after an accident. He complained severe pain in the left arm. Physical examination suggested fracture of humerus, which was confirmed radiologically. The patient was able to extend the elbow, but unable to extend the wrist. Supination appeared weak.
- 4.1 Which nerve is affected in this fracture (10 Marks)
- 4.2 Describe the course and branches of this nerve from its origin to the level of elbow (40 Marks)
- 4.3 Explain the following on anatomical basis
- 4.3.1 Patient is able to extend the elbow but unable to extend the wrist (25 Marks)
- 4.3.2 Supination of the forearm is weak (15 Marks)
- 4.4 Which action of thumb is totally affected in this patient (10 Marks)
5. A 20 year old boy while eating his dinner in a seafood restaurant choked a piece of fish and had a fish bone stucked in his throat. Stucked bone was removed from the piriform fossa by laryngoscope
- 5.1 Explain the anatomy of the piriform fossa (30 Marks)
- 5.2 Write the extrinsic and intrinsic muscles of the larynx and their nerve supply (30 Marks)
- 5.3 Describe the intrinsic ligaments and membranes of the larynx (20 Marks)
- 5.4 Name the anatomical structures viewed from base of the tongue to the trachea during the laryngoscopic examination in order (20 Marks)

Part C

6. A 40 year old man had a blunt trauma in the abdominal region. Radiography showed a diaphragmatic rupture (injury) in the left side
- 6.1 What are the abnormally positioned structures/organs you may see in the chest radiography (20 Marks)
- 6.2 Write notes on the structure, blood supply and innervation of diaphragm (35 Marks)
- 6.3 Write notes on the openings present in the diaphragm and the structures pass through these openings (in a healthy individual) (25 Marks)
- 6.4 Write notes on the development of diaphragm (20 Marks)
7. A 20 year old male was presented with a colic pain in the right side abdomen. Imaging tests confirmed the presence of a calculus in the pelvic ureteric junction
- 7.1 List the other common sites where you may detect calculi in the ureter (20 Marks)
- 7.2 Name the sites where the refered pain is felt due to calculi in locations you have mentioned in 7.1 (20 Marks)

- 7.3 Describe the blood supply to (and within) the kidney in a healthy individual (40 Marks)
- 7.4 Microscopic anatomy of ureter at pelviureteric junction (20 Marks)

Part D

8. Describe the greater omentum under the following headings
- 8.1 Gross Anatomy (40 Marks)
- 8.2 Development (30 Marks)
- 8.3 Functions and usefulness (30 Marks)
9. A 61 year old man was admitted to the surgical ward with the obstructive jaundice. Abdominal computed tomography (CT) demonstrated a malignant pancreatic head tumour. He underwent a pancreaticoduodenectomy (Removal of duodenum and head of pancreas)
- 9.1 Describe the anatomical relations of the head of pancreas (50 Marks)
- 9.2 Briefly describe the blood supply of the pancreatic head (20 Marks)
- 9.3 Describe the embryological basis of formation of the pancreatic head and its anomalies (30 Marks)

Part E

10. A 9 year old boy presented with mastoid abscess underwent radical mastoid operation. The patient's face on that side found to be abnormal in the post operative period.
- 10.1 What is the reason for the above problem in this boy (10 Marks)
- 10.2 What are the signs and symptoms you would expect due to the structural injury (20 Marks)
- 10.3 Describe the nuclear components of the structure which was injured (30 Marks)
- 10.4 Describe the extracranial course and distribution of this particular structure (40 Marks)