

UNIVERSITY OF JAFFNA, SRI LANKA
FIRST EXAMINATION FOR MEDICAL DEGREES – JANUARY 2011
ANATOMY PAPER II

Date: 05.01.2011

Time: 3 hours

Answer all TEN questions

Answer EACH PART in separate answer book

Part A

1. Write briefly about the female breast on the following headings
 - 1.1 Anatomical extent of the breast (25 Marks)
 - 1.2 Lymphatic drainage (30 Marks)
 - 1.3 Development (20 Marks)
 - 1.4 Microscopic anatomy of child breast (25 Marks)

2. A two year old child while eating a chocolate had a severe coughing and difficulty in breathing.
 - 2.1 Write the possible site in the bronchial tree that foreign material lodge most commonly (10 Marks)
 - 2.2 Write briefly about the bronchopulmonary segments (40 Marks)
 - 2.3 List three abnormalities during the development of respiratory system (15 Marks)
 - 2.4 Compare and contrast the microscopic features of bronchi and bronchioles (35 Marks)

3. Inflammation in pancreas (pancreatitis) can cause passage of pancreatic fluid into the bursa related to it, forming a pancreatic pseudocyst.
 - 3.1 Name the bursa, where the fluid accumulates in the above (10 Marks)
 - 3.2 Outline how this bursa is formed during development (20 Marks)
 - 3.3 Describe the boundaries of the above bursa (40 Marks)
 - 3.4 Enumerate the structures related to its right boundary (15 marks)
 - 3.5 List 2 clinical applications of knowing the above (3.4) (15 Marks)

4. A patient underwent splenectomy due to a stab injury on the left hypochondrial region, which has damaged the spleen.
 - 4.1 Briefly describe the anatomical location of spleen. (20 Marks)
 - 4.2 Describe its relations. (30 Marks)
 - 4.3 Mention the peritoneal attachments of spleen indicating the development of these attachments. (15 Marks)
 - 4.4 List the structures that are contained within the attachments you mentioned in 4.3 (20 Marks)
 - 4.5 How an enlarged spleen can be differentiated from retroperitoneal tumor mass on percussion (15 Marks)

5. During a sport injury, a 1st year medical student's right leg got twisted and he developed pain over the knee joint. The joint was swollen and tender.
 - 5.1 Specify the type of the knee joint. (15 Marks)
 - 5.2 Describe the menisci of this joint (20 Marks)
 - 5.3 Outline the function of the popliteus tendon in the joint movement (20 Marks)
 - 5.4 List the factors that stabilize the patella in its position (15 Marks)
 - 5.5 On examination the joint showed excess anterior mobility (anterior drawer sign). Give the most likely diagnosis and explain it on anatomical basis (30 Marks)

Part B

6.
 - 6.1 Enumerate the development of thyroid gland (20 Marks)
 - 6.2 Mention two developmental abnormalities of the thyroid gland (10 Marks)
 - 6.3 Draw a diagram of horizontal section of neck through thyroid gland and indicate the structures (40 Marks)
 - 6.4 Mention the blood supply of thyroid gland and the importance of it (30 Marks)

7. Mention the most important one structure can be damaged during the following fractures and briefly describe the anatomical deformity expected after the damage to the structure
 - 7.1 Neck of the fibula fracture (35 Marks)
 - 7.2 Mid shaft of the humerus fracture (35 Marks)
 - 7.3. Supra condylar fracture of humerus (30 Marks)

8. A general surgeon is performing an inguinal herniotomy
 - 8.1 Mention in order, from the skin up to inguinal canal, the structures he has to divide during this surgery (25 Marks)
 - 8.2 How the surgeon will confirm whether it is a direct or indirect inguinal hernia during surgery (25 Marks)
 - 8.3 What is the most vulnerable nerve that can be injured during this procedure (10 Marks)
 - 8.4 If the above nerve is damaged during the surgery, what will be the patient's complaint after the surgery? [due to the damage to the above nerve] (10 Marks)
 - 8.5 Brief out the contents of spermatic cord (30 Marks)

Part C

9. A 53 year old male patient had metastatic carcinoma involving the segment V of liver. He underwent a laparotomy through a midline incision and to remove the involved segment V, Segmentectomy of liver was performed
- 9.1 List the layers of anterior abdominal wall which will be cut while performing a midline laparotomy (20 Marks)
 - 9.2 Name the structures that attaches liver to the anterior abdominal wall (10 Marks)
 - 9.3 Briefly describe the blood supply of liver (30 Marks)
 - 9.4 Outline the segmental anatomy of liver (30 Marks)
 - 9.5 Name the branches of vessels that will have to be ligated to remove the segment V of liver (10 Marks)

Part D

10. Write short notes on
- 10.1 Brown – Sequard Syndrome (25 Marks)
 - 10.2 Floor of the fourth ventricle (25 Marks)
 - 10.3 Internal capsule (25 Marks)
 - 10.4 Basal ganglia (25 Marks)