

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**FIRST EXAMINATION FOR MEDICAL DEGREES (1<sup>st</sup>) – October 2019**  
**ANATOMY – PAPER II**

Date : 14.10.2019

Time : Three Hours

Answer all TEN questions

Answer EACH PART in a separate answer book

**PART A**

1. A 60 year man had undergone coronary bypass surgery. Sternum was split to access the internal organs/structures.
  - 1.1 What do you understand by the term “coronary bypass surgery”? (10 Marks)
  - 1.2 Mention the joints formed with (and within) the sternum precisely and indicate their types separately (25 Marks)
  - 1.3 Mention the structure/s lie between the sternum and fibrous pericardium (20 Marks)
  - 1.4 List the arteries that supply to pericardium (15 Marks)
  - 1.5 Write the cardiac chambers that form the surfaces of heart precisely (30 Marks)
  
2. A 45-year man was presented with severe epigastric pain and pain over his right shoulder. The condition was diagnosed as perforated gastric ulcer. During surgery, the perforation found on the posterior wall of stomach was repaired.
  - 2.1 Outline the boundaries of epigastric region (15 Marks)
  - 2.2 Mention the posterior relations of stomach (20 Marks)
  - 2.3 How do you explain the pain over the right shoulder? (15 Marks)
  - 2.4 Outline the lymphatic drainage of stomach (25 Marks)
  - 2.5 Outline the arterial blood supply to the stomach (25 Marks)
  
3. 3.1 Regarding inferior venacava
  - 3.1.1 Briefly describe the surface marking (20 Marks)
  - 3.1.2 List the tributaries (in order) (20 Marks)
  
- 3.2 Mention the sites of porto-systemic anaestomosis (20 Marks)
  
- 3.3 Write notes on autosomal recessive inheritance pattern (40 Marks)

## PART B

4. A 26 year man while eating the meal feels something struck in his throat. Direct laryngoscopic examination revealed a fish bone lodged in the left side of his piriform recess
- 4.1 Specify the anatomical location of piriform recess (20 Marks)
  - 4.2 List the structures that lie beneath the mucous membrane of this recess (10 Marks)
  - 4.3 Enumerate the intrinsic muscles of larynx and their nerve supply (30 Marks)
  - 4.4 Draw and label the laryngoscopic view of larynx (20 Marks)
  - 4.5 Describe the microscopic appearance of larynx (20 Marks)
5. A 16 year boy while playing in the uneven ground, his right foot was twisted and he fell down. On examination there was tenderness and swelling in his right ankle and x ray revealed normal. It was diagnosed as injury of the lateral ligament of ankle joint.
- 5.1 Name the subdivision of the ligament which is more prone to injury (10 Marks)
  - 5.2 Specify the type of this joint (10 Marks)
  - 5.3 Write short notes on the stabilizing factors of this joint (30 Marks)
  - 5.4 Classify the movements of this joint and name the muscles producing these actions (30 Marks)
  - 5.5 Write short notes on Pott's fracture (20 Marks)

## Part C

6. 6.1 A 27 year primi mother delivered a baby by lower segment cesarean section (LSCS). On neonatal examination the child had large head circumference, bulging fontanelle, dilated head veins and downward gaze. CT scan revealed dilated lateral and 3rd ventricles with normal 4th ventricle.
- 6.1.1 What do you understand by the term hydrocephalus? (15 Marks)
  - 6.1.2 What would be the cause of hydrocephalus in this infant? (10 Marks)
  - 6.1.3 Give 3 functions / clinical importance of fontanelle (15 Marks)
  - 6.1.4 Outline in detail (using flow chart only) production, circulation and reabsorption of cerebrospinal fluid (30 Marks)
- 6.2 Discuss different types of cerebral haemorrhage on anatomical basis (30 Marks)

7. A 28 year woman presented with pain on right neck and shoulder, which radiated into the hand. She had episodes of paresthesia and coldness of the right upper limb. Right-hand interossei muscle power was weak. X-rays of the spine revealed cervical rib and angiogram revealed right subclavian artery compression
- 7.1 What is cervical rib ? (10 Marks)
- 7.2 With a line diagram show the presence of cervical rib and related anatomical structures (30 Marks)
- 7.3 Write the dermatomes involved and area of paresthesia (20 Marks)
- 7.4 Describe on anatomical basis how will you check the power of interossei muscles in this patient (20 Marks)
- 7.5 Outline with diagram only the collateral circulation in this patient (20 Marks)
- 8 Describe the following on anatomical basis
- 8.1 A 5 year boy presented with watery discharge through umbilicus. On investigation the discharge was found to be urine (30 Marks)
- 8.2 Cancer of cervix may lead to hydroureter (30 marks)
- 8.3 Pectinate line of anal canal act as a water shed area (40 marks)

#### Part D

- 9 A 65 year old man was admitted at the hospital with the complaints of yellowish discoloration. Contrast Enhanced Computed Tomography scan of the abdomen revealed carcinoma of the head of the pancreas.
- 9.1 Mention the type of jaundice in the above condition (10 Marks)
- 9.2 Name the cells secrete bile (05 Marks)
- 9.3 Draw a labeled line diagram of extrahepatic biliary tract (25 Marks)
- 9.4 Draw and label the microscopic anatomy of pancreas (30 Marks)
- 9.5 Briefly describe the development of pancreas and list two abnormalities (30 Marks)
10. Regarding the male reproductive system
- 10.1 List the layers and contents of spermatic cord (45 Marks)
- 10.2 Draw and label the cross section of testis under the light microscope (40 Marks)
- 10.3 List three abnormalities during the development of penis (15 Marks)