



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA  
SECOND EXAMINATION FOR MEDICAL DEGREES NOVEMBER 2009.

ANATOMY PAPER II

TUESDAY 16<sup>TH</sup> MARCH 2010

THREE HOURS

Answer all FIVE Questions

Answer EACH QUESTION in a SEPARATE BOOK

Use diagrams where necessary

1. A cricketer when throwing a ball at the stumps suddenly felt a severe pain in the right shoulder. Thereafter, he noticed that he was unable to perform any movement at this joint. On his way to the hospital he had to support his right upper limb with the left hand. There was a sensory loss over the deltoid insertion.
- 1.1 What could be the cause for the above clinical presentation? (10 marks)
- 1.2 State the anatomical basis for the sensory loss in this patient. (15 marks)
- 1.3 List three nerves which supply the shoulder joint. (10 marks)
- 1.4 Discuss the stability of the shoulder joint. (40 marks)
- 1.5 Describe the light microscopic appearance of the articular cartilage. (25 marks)
2. One year old boy was admitted to a hospital with a recent history of vomiting and progressive enlargement of the head. On examination he had no fever, but had a bulging anterior fontanelle. A CT scan of the head revealed an enlarged ventricular system of the brain due to a tumor obstructing the cerebral aqueduct. Using your knowledge on neuroanatomy answer the following.
- 2.1 State the neurological condition this boy is having. (05 marks)
- 2.2 Describe the anatomical basis for the statements underlined above. (30 marks)
- 2.3 Describe briefly the gross anatomy of the fourth ventricle of the brain. (30 marks)
- 2.4 State four clinical applications of unfused anterior fontanelle in an infant. (20 marks)
- 2.5 Why is it dangerous to do a lumbar puncture in a patient with increased intracranial pressure? (15 marks)

3. A patient was admitted to a surgical casualty ward with a stab injury to the right side of the chest, close to the anterior axillary-fold at the 4<sup>th</sup> intercostal space. On examination he was dyspnoeic. There was evidence of mediastinal shift. An intercostal (IC) tube was inserted as an immediate measure.

- 3.1 List three complications that would have occurred in the thorax as a result of the stab injury. (15 marks)
- 3.2 How would you identify a mediastinal shift by examining a patient? (20 marks)
- 3.3 Discuss the anatomical basis of inserting an IC tube. (25 marks)
- 3.4 Describe the surface marking of the pleurae and lungs. (40 marks)

4. A 65 year old male presented with a history of bleeding per rectum. Per rectal examination revealed a mass at the lower end of the rectum later confirmed to be a carcinoma of the rectum. Surgical resection of the tumour was done and a permanent colostomy was performed using the sigmoid colon.

- 4.1 Explain the anatomical basis of performing colostomy using the sigmoid colon in this patient. (20 marks)
- 4.2 List the structures palpable anteriorly during per rectal examination in a normal male. (25 marks)
- 4.3 Discuss the anatomy of the sigmoid mesocolon. (30 marks)
- 4.4 Describe lymphatic drainage of the rectum and anal canal. (25 marks)

5. 5.1 Describe the classification of glands, giving examples. (20 marks)
- 5.2 Write an account on the gross-anatomy of the parotid gland. (30 marks)
- 5.3 Explain the complications that follow a total parotidectomy. (30 marks)
- 5.4 Describe the derivatives of the second pharyngeal arch (20 marks)

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