



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

ANATOMY PAPER II

THREE HOURS

WEDNESDAY 17TH JUNE 2009

Answer all FIVE Questions

Answer EACH QUESTION in a SEPARATE BOOK

Use diagrams where necessary

1. A patient admitted to a surgical casualty unit, Teaching Hospital Karapitiya with a history of blunt trauma to the abdomen following a road traffic accident. The patient was collapsed and there was evidence of blood in the peritoneal cavity. The surgeon performed an emergency laparotomy using a midline incision.
- 1.1 Name two most vulnerable structures likely to be damaged. (10 marks)
- 1.2 Discuss advantages and disadvantages of the midline incision. (20 marks)
- 1.3 Name four other abdominal incisions. (20 marks)
- 1.4 Describe briefly the gross anatomy of the rectus sheath. (20 marks)
- 1.5 State how a surgeon would distinguish between the different parts of the intestine popping out of the surgical incision at surgery. (30 marks)
- ✓ 2. A 45 year old woman presented with a complaint of retraction of her left nipple of recent onset with elevation of the left breast higher than the right breast. On examination, it was revealed that the skin over the left breast looks thicker and leathery, with dimpling, giving the appearance of a skin of an orange. In the axilla, 3-4 discrete painless nodules could be palpated along the lower border of pectoralis minor muscle. She underwent extensive surgery for the condition. A doctor examining the patient following surgery noted that when she pushes against a wall with both hands the medial border and the inferior angle of the left scapula became unduly prominent.
- 2.1 State the anatomical basis for the findings underlined above. (40 marks)
- 2.2 State the reasons for the medial border and the inferior angle of the scapula becoming unduly prominent when pushed against a wall with both hands. (20 marks)
- 2.3 Describe the blood supply of the female breast. (20 marks)
- 2.4 Describe briefly the light microscopic appearance of a lactating breast. (20 marks)

3. A 68 year old alcoholic patient presented with intentional tremor, dysarthria and dysdiadochokinesia. His sensory system was found to be normal.
- 3.1 State the most probable structure of the central nervous system (CNS) affected in this patient. (20 marks)
 - 3.2 Describe the blood supply of the structure stated in 3.1. (30 marks)
 - 3.3 How do you clinically elicit dysdiadochokinesia? (20 marks)
 - 3.4 List three signs which could be looked for during the examination of the patient. (30 marks)
4. A 40 year old male was admitted to a surgical ward with a history of blunt trauma to the root of the penis. He complained of pain and swelling of the external genitalia. On examination the doctor noticed that the swelling he had was extended up to the level of the umbilicus, but not in the thighs.
- 4.1 State the site of the injury to the urethra in this patient. (10 marks)
 - 4.2 Explain anatomically why the swelling is confined to the area described above. (30 marks)
 - 4.3 Describe briefly the development of the male urethra. (20 marks)
 - 4.4 Describe the anatomy of the deep perineal pouch including the differences in male and female. (40 marks)
5. Write short notes on
- 5.1 derivatives of the second pharyngeal arch. (20 marks)
 - 5.2 innervation of the tongue. (30 marks)
 - 5.3 lymphatic drainage of the tongue. (30 marks)
 - 5.4 light microscopic appearance of skeletal muscle. (20 marks)