



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA GALLE
SECOND EXAMINATION FOR MEDICAL DEGREES – MAY 2018

ANATOMY- PAPER II

THREE HOURS (2.00 - 5.00 P.M.)

Answer all FIVE questions

MONDAY 14TH MAY 2018

Answer EACH QUESTION in a SEPARATE BOOK

Use diagrams where necessary

- 1 ● A nurse noted a spurt of bleeding while she was taking blood from the median cubital vein of a patient. Later it was identified that the bleeding was from an artery which was punctured accidentally deep to the median cubital vein.
- 1.1 1.1.1 What is the artery that has been punctured accidentally? (10 marks)
- 1.1.2 State the branches of the artery you stated above in (1.1.1) (15 marks)
- 1.2 Describe the boundaries of the cubital fossa. (40 marks)
- 1.3 Describe the light microscopic appearance of the median cubital vein. (20 marks)
- 1.4 Describe briefly the development of upper limb. (15 marks)
2. ● A 42 year-old female was admitted to the emergency treatment unit with nausea, vomiting and severe pain in the right hypochondrium. Radiological investigations revealed gall stones with evidence of cholecystitis. The gall bladder was removed laparoscopically.
- 2.1 2.1.1 List the tissue layers encountered by the passage of the laparoscope into the peritoneal cavity through the anterior abdominal wall medial to the linea semilunaris (10 marks)
- 2.1.2 Describe the location, peritoneal attachments, blood supply and the anatomical relations of the gall bladder. (30 marks)
- 2.2 Outline the course of the common bile duct. (20 marks)
- 2.3 Describe the light microscopic appearance of the gall bladder. (20 marks)
- 2.4 Describe briefly the embryological development of the gall bladder and the duct system. (20 marks)

3. Surgical removal of the right parotid gland was performed on a 50 year-old male having a benign mixed salivary tumour. Following the surgery, patient developed deviation of his mouth to the left side.
- 3.1 3.1.1 What is the structure which has been damaged? (10 marks)
- 3.1.2 Describe the anatomical basis for the deviation of his mouth. (10 marks)
- 3.2 Describe the gross anatomy of the parotid gland. (40 marks)
- 3.3 Describe the light microscopic features of parotid gland. (20 marks)
- 3.4 State briefly the derivatives and innervation of the second pharyngeal arch. (20marks)
4. A 30 year-old motor cyclist was admitted to the emergency treatment unit with a fracture of the right fibula. Following the surgical intervention, he developed anesthesia over the antero-lateral side of the distal third of the right leg and the dorsum of right foot. However, sensations over the first web, antero-medial and antero-lateral sides of the foot were intact. Weakness of eversion of the right foot was also noted.
- 4.1 4.1.1 Name the nerve damaged in this patient. (05 marks)
- 4.1.2 Name the muscles paralysed following injury to the nerve stated in (4.1.1) (10 marks)
- 4.2 State the anatomical basis for the features stated above. (35 marks)
- 4.3 Describe in brief the light microscopic appearance of a peripheral nerve. (25 marks)
- 4.4 What is talipes equinovarus deformity? (25 marks)
5. A 60 year-old man with hypertension admitted to the hospital with hemiplegia and sensory loss of the right side of the body. Investigations revealed a haemorrhage in a central branch of a main cerebral artery supplying the internal capsule on the left side.
- 5.1 5.1.1 Illustrate the possible site of lesion in a labeled diagram. (10 marks)
- 5.1.2 What is the main cerebral artery to which the affected branch belongs to? (05 marks)
- 5.1.3 Outline the area of the supply of the main cerebral artery you mentioned in 5.1.2 (20 marks)
- 5.1.4 Explain the anatomical basis for hemiplegia in this patient. (30 marks)
- 5.2 Describe briefly the light microscopic appearance of the artery you mentioned in 5.1.2 (15 marks)
- 5.3 Describe briefly the development of cerebrum. (20 marks)