

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**FIRST EXAMINATION FOR MEDICAL DEGREES (2<sup>nd</sup>) - AUGUST 2018**  
**ANATOMY – PAPER II**

**Date : 27.08.2018**

**Time: Three hours**

**Answer all TEN questions**

**Answer EACH PART in a separate answer book**

**Part A**

1. Baby boy aged 3 months has empty scrotum (absence of testicles).  
Ultrasound scan of abdomen revealed that both testicles are in the abdominal cavity.
  - 1.1 Write the appropriate clinical terminology for this condition (10 Marks)
  - 1.2 Name the important structure involved in the descend of testis (10 Marks)
  - 1.3 List the coverings of the testis from outside to inside (25 Marks)
  - 1.4 List three abnormalities during the development of penis (15 Marks)
  - 1.5 Describe the microscopic anatomy of testis (40 Marks)
  
2.
  - 2.1 Briefly describe the microscopic anatomy of
    - 2.1.1 Submandibular salivary gland (25 Marks)
    - 2.1.2 Duodenum (25 Marks)
  - 2.2 Write notes on the development of
    - 2.2.1 Pituitary gland (25 Marks)
    - 2.2.2 Breast (25 Marks)

**Part B**

3. Explain the anatomical basis of the following
  - 3.1 Fourth and fifth lumbar vertebra interspinous space is preferred for lumbar puncture (25 Marks)
  - 3.2 Pituitary tumor leads to bitemporal hemianopia (25 Marks)
  - 3.3 Dysphagia and dysarthria with lateral medullary syndrome (25 Marks)
  - 3.4 Dilated pupil in extradural haemorrhage (25 Marks)
  
4. Briefly discuss the anatomical defects / deformity that occurs in patients with
  - 4.1 Cut injury to ulnar nerve at wrist (40 Marks)
  - 4.2 Compression of median nerve within carpal tunnel (40 Marks)
  - 4.3 Colles's Fracture (20 Marks)

5. Write short notes on
- 5.1 Importance of angle of Louis (35 Marks)
  - 5.2 Bronchopulmonary segments (35 Marks)
  - 5.3 Blood supply of heart (30 Marks)

**Part C**

6. A 62 year man presented with obstruction in the large intestine. It was noted that the above patient had undergone an abdominal surgery few months ago. It was decided to perform a laparotomy using midline surgical incision in the anterior abdominal wall.
- 6.1 What is the most likely cause for the intestinal obstruction in this patient? (10 Marks)
  - 6.2 What are the advantages of midline surgical incision? (20 Marks)
  - 6.3 List the structures that had to be incised (cut) to reach the abdominal cavity in this surgery (in order) (20 Marks)
  - 6.4 Outline the nerve supply to each muscle in the anterior abdominal wall (precisely) (25 Marks)
  - 6.5 Outline the blood supply of colon (25 Marks)
7. A 20 year man was admitted to the emergency unit with a deep cut in the middle of the left posterior triangle of the neck. The patient later complained that he had difficulty in raising the left arm above the head and rotating his head to the right side. Both deformities occurred due to injury to a single nerve.
- 7.1 Outline the boundaries of the posterior triangle (15 Marks)
  - 7.2 List the contents of the posterior triangle (20 Marks)
  - 7.3 Name the nerve that most likely injured in this patient (15 Marks)
  - 7.4 Describe the course of this nerve within the posterior triangle (20 Marks)
  - 7.5 Explain the reasons for the above clinical presentation (30 Marks)
8. Write notes on
- 8.1 Communications of cavernous sinus (35 Marks)
  - 8.2 Autosomal recessive inheritance pattern (35 Marks)
  - 8.3 Stability of temporomandibular joint (30 Marks)



### Part D

9. A 59 year woman complains of lower abdominal pain intermittently over the last 6 weeks and loss of weight for the past two months. On ultrasound examination it was confirmed as ovarian cancer in the left side ovary.
- 9.1 Briefly describe the relations of left ovary (25 Marks)
  - 9.2 Write the course of ovarian artery (20 Marks)
  - 9.3 List four contents of broad ligament (20 Marks)
  - 9.4 Briefly describe the lymphatic drainage of ovary (20 Marks)
  - 9.5 Write two differences between corpus luteum and corpus albicans (15 Marks)
10. A 60 year man admitted to the hospital had a fall following the history of giddiness. On examination, X- ray of his left hip joint revealed the complete fracture of the neck of the left femur bone.
- 10.1 Name the important anatomical structures related to the neck of the femur (20 Marks)
  - 10.2 What the anatomical deformity you will expect in this patient? (15 Marks)
  - 10.3 Write short notes on the gross anatomy of capsule of the hip joint (25 Marks)
  - 10.4 List the factors stabilizing the hip joint (20 Marks)
  - 10.5 Enumerate the general features of a synovial joint (20 Marks)

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