



UNIVERSITY OF JAFFNA, SRI LANKA
FIRST EXAMINATION FOR MEDICAL DEGREES (2nd) -JANUARY 2020
ANATOMY – PAPER II

Date : 20.01.2020

Time: Three hours

Answer all TEN questions

Answer EACH PART in a separate answer book

PART A

1. A 10 year child while eating a chocolate had severe coughing and difficulty in breathing.
 - 1.1 Write the possible side of the bronchus the foreign material may lodge (10 Marks)
 - 1.2 Briefly describe the structural adaptations in the respiratory system to perform its function effectively (40 Marks)
 - 1.3 List four abnormalities during the development of respiratory system (20 Marks)
 - 1.4 Draw and label the microscopic appearance of intrapulmonary bronchus (30 Marks)

2. A 30 year female underwent total thyroidectomy. She developed hoarseness of voice after surgery
 - 2.1 What structure is affected in this patient? (10 Marks)
 - 2.2 Enumerate the blood supply of the thyroid gland (25 Marks)
 - 2.3 Write briefly the microscopic anatomy of the thyroid gland (30 Marks)
 - 2.4 Write the development of thyroid gland and list three abnormalities (35 Marks)

PART B

3. A 12 year boy admitted to the emergency unit after traumatic injury to perineum with lower abdominal swelling upto the upper thigh and enlarged scrotum. Retrograde urethrogram confirmed rupture of urethra with extravasation of urine.
 - 3.1 Mention the parts of urethra and their anatomical location (20 Marks)
 - 3.2 Which part of the urethra would be damaged? (10 Marks)
 - 3.3 Mention the boundaries of the region where the part of urethra mentioned in 3.2 is located (30 Marks)
 - 3.4 Explain on anatomical basis, why swelling is confined to scrotum, lower abdomen and upper thigh (40 Marks)

4. Describe the following
 - 4.1 Blood supply of spinal cord (30 Marks)
 - 4.2 Anatomy of midbrain (40 Marks)
 - 4.3 Fourth ventricle (30 Marks)

5. A patient presented to accidental and emergency unit found to have axillary artery injury and it was repaired
 - 5.1 Outline the surface marking of the axillary artery (15 Marks)
 - 5.2 List the branches of the axillary artery in relation to the pectoralis minor muscle in axilla (15 Marks)
 - 5.3 Enumerate the anatomical relationship of other contents of the axilla with diagrams (40 Marks)
 - 5.4 List the nerves more vulnerable in axillary surgery and how will you check the integrity of these nerves (30 Marks)

PART C

6. A 16 year girl presented with the history of right foot drop and numbness along the dorsum of her right foot and anterolateral aspect of the leg
 - 6.1 Name the anatomical structure involved in the above patient (10 Marks)
 - 6.2 Write short notes on the course of structure mentioned in 6.1 (40 Marks)
 - 6.3 Briefly describe the sensory innervation of the dorsum of the foot (25 Marks)
 - 6.4 List five plantar flexor muscles of the foot and their nerve supply (25 Marks)

7. A 21 year male underwent for parotidectomy on left side. In the post-operative period, facial abnormality was detected on the same side.
 - 7.1 Which nerve is affected in the above surgery (10 Marks)
 - 7.2 Briefly describe the branches of the nerve mentioned in 7.1 (30 Marks)
 - 7.3 How will you identify the nerve mentioned in 7.1 during the parotidectomy? (20 Marks)
 - 7.4 Write briefly how to test the integrity of branches of the above nerve (40 Marks)

PART D

8. A 58 year man had undergone surgical repair for inguinal hernia. During surgery, the surgeon noted that the hernia sac was present lateral to the inferior epigastric vessels.
 - 8.1 Mention the most likely type of inguinal hernia (10 Marks)
 - 8.2 Write reason for your answer in 8.1 (15 Marks)
 - 8.3 Outline the boundary of Hessalbach's triangle (25 Marks)
 - 8.4 Briefly describe the posterior wall of the inguinal canal (20 Marks)
 - 8.5 List the contents of spermatic cord (30 Marks)

9. A
- 9.1 Write notes on
 - 9.1.1 Gross anatomy of arch of aorta (25 Marks)
 - 9.1.2 Anastomosis of coronary arteries (25 Marks)
 - 9.2 List the tributaries of azygos vein (20 Marks)
- B Mention six common phenotypic features of Down syndrome (30 Marks)
- 10.
- A 40 year man had a blunt trauma due to a road traffic accident (RTA). Severe hemorrhage from the ruptured spleen was controlled by splenectomy
- 10.1 Define the term “splenectomy” (10 Marks)
 - 10.2 Mention the anatomical location of spleen precisely (10 Marks)
 - 10.3 Outline the anatomical relation of the spleen (40 Marks)
 - 10.4 Outline the blood supply of spleen (40 Marks)

