

UNIVERSITY OF JAFFNA, SRI LANKA  
FIRST EXAMINATION FOR MEDICAL DEGREES (2<sup>nd</sup>) –JUNE 2021  
ANATOMY – PAPER II

Date : 14.06.2021

Answer all TEN questions

Answer EACH QUESTION in a separate answer book

Time: Three hours



1. Regarding the digestive system
  - 1.1 Write notes on light microscopic appearance of fundus of the stomach (30 Marks)
  - 1.2 Briefly describe the structural features of small intestine to perform its functions effectively (30 Marks)
  - 1.3 Write briefly the development of pancreas (30 Marks)
  - 1.4 List two abnormalities during the development (10 Marks)
2.
  - 2.1 Describe the arterial supply of cerebral hemisphere with diagrams (40 Marks)
  - 2.2 Outline the optic pathway (30 Marks)
  - 2.3 Describe the cranial duramatter (30 Marks)
3. A man was presented to the surgical casualty ward with a cut injury over the medial aspect of the wrist with profuse bleeding following a trauma. The vessel was ligated. His hand appeared deformed and also he had sensory loss over the antero medial aspect of the palm and finger.



- 3.1
  - 3.1.1 What is the possible vessel damaged? (10 Marks)
  - 3.1.2 What are the vessels supplying the hand? (10 Marks)
  - 3.1.3 Why the vessel was ligated rather than anastomosed? (10 Marks)
- 3.2
  - 3.2.1 What is the deformity? (10 Marks)
  - 3.2.2 Explain on anatomical basis the deformity of hand (30 Marks)
  - 3.2.3 Explain the sensory impairment in this patient on anatomical basis (20 Marks)
  - 3.2.4 Comment on deformity of hand if lesion occur at a higher level to this structure (10 Marks)

4. A 30 year male had a blunt trauma in the left upper abdomen during a car accident. Investigations revealed severe haemorrhage due to ruptured spleen. It was decided to perform splenectomy.

4.1 How do you explain the occurrence of severe haemorrhage in this patient? (10 Marks)

4.2 Illustrate the term "splenectomy" (10 Marks)

4.3 Write notes on splenic artery (35 Marks)

4.4 Outline the gastrosplenic ligament (15 Marks)

4.5 Mention the anatomical relations of the spleen precisely (30 Marks)

5.

5.1 Write notes on

5.1.1 Bronchopulmonary segments (35 Marks)

5.1.2 Anterior interventricular artery (30 Marks)

5.2 Write notes on deletion(s) in the structure of the chromosome (35 Marks)

6. A 63 year male underwent for superficial parotidectomy for a neoplastic lesion and facial asymmetry was noted after the surgery. It was diagnosed as facial nerve palsy.

6.1 Outline the extracranial course of facial nerve (35 Marks)

6.2 Mention the structures used to locate facial nerve during parotid surgery (20 marks)

6.3 List the structures traverse the parotid gland (20 marks)

6.4 Name the structures emerge out beneath the anterior border of parotid gland (25 Marks)

7. A 26 year male admitted to the hospital with the history of nasal bleeding. It was diagnosed as anterior nasal epistaxis (bleeding from nose).

7.1 Explain the anatomy of little's area in the nasal cavity (30 Marks)

7.2 Write short notes on the lateral wall of nasal cavity (45 Marks)

7.3 Briefly discuss the maxillary sinus (25 Marks)

8. A patient presented with tumour metastasis from colon to the functional right lobe of liver. CT scan demonstrated that the metastatic lesions were situated in the segments V and VIII of liver

8.1 Mention the landmarks used to separate functional lobes of liver (10 Marks)

8.2 Name the segments found in functional right lobe (20 Marks)

8.3 Describe the basis of description of segmental anatomy of liver (10 Marks)

8.4 Enumerate the structures lying anterior to segments V and VIII (20 Marks)

8.5 Outline the venous drainage of segments of liver to inferior vena cava (20 Marks)

8.6 Explain on anatomical basis (venous drainage) the tumour spread from colon to liver (20 Marks)



9. A 50 year motor cyclist admitted to accident unit with a history of road traffic accident. He developed severe swelling in the leg and felt unbearable severe pain in the leg. He also complained of numbness and paresthesia over the right foot mainly in the first inter digital space. The radiological investigation revealed right mid shaft tibia fracture. The clinical diagnosis of the patient made as compartment syndrome.

- 9.1 Why he developed paresthesia and numbness over the right foot? (10Marks)
  - 9.2 Name the compartments in the lower leg (20Marks)
  - 9.3 Describe the blood supply of each compartment muscles (20Marks)
  - 9.4 List the muscles in each compartments mentioned above (50Marks)
10. A 60 year male presented with blood in urine and cystoscopy (camera test to see interior of urinary bladder) examination revealed a urinary bladder cancer at posterior bladder wall (Image 1). Tumour was removed and histology demonstrated tumour entering in to the perivesical fat (Image 2).

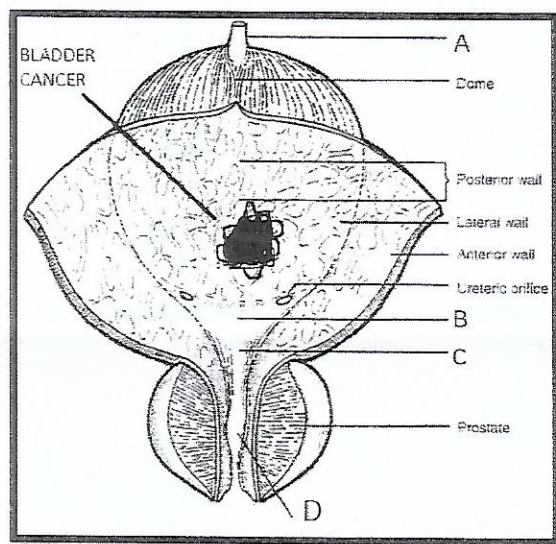


Image -1

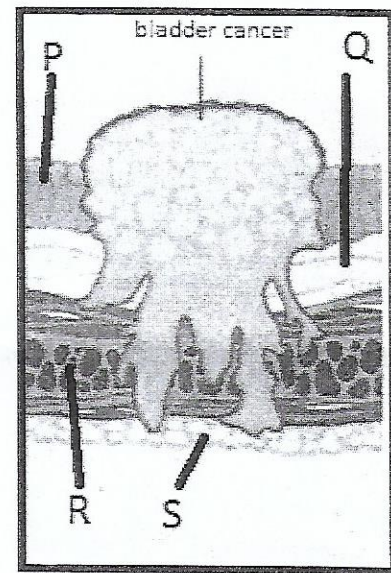


Image-2

- 10.1 Identify parts A,B,C,D of urinary bladder (16Marks)
- 10.2 What is the embryological structure give rise structure A? (08Marks)
- 10.3 What do you understand by "Trigone of bladder"? (10Marks)
- 10.4 List the parts P,Q,R,S from image 2 (16Marks)
- 10.5 What type of epithelium covers the urinary bladder mucosa (05Marks)
- 10.6 List the arteries that supply bladder (10Marks)
- 10.7 Describe the relations of urinary bladder in this patient (male) (35Marks)