

UNIVERSITY OF JAFFNA, SRILANKA
FIRST EXAMINATION FOR MEDICAL DEGREES – OCTOBER 2022
ACADEMIC YEAR 2019/20
ANATOMY – PAPER II

Date :05.10.2022

Time: Three hours

Answer all TEN Questions

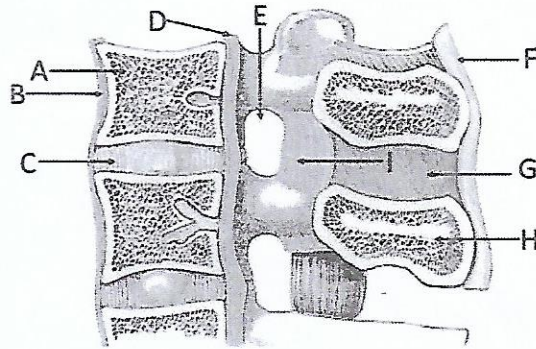
Answer EACH QUESTION on separate answer book

1. Regarding ovary
 - 1.1 Describe the gross structure of the ovary 20 Marks
 - 1.2 Describe the relations of ovary 20 Marks
 - 1.3 Describe the attachments of the ovary 20 Marks
 - 1.4 Outline the blood supply of ovary 20 Marks
 - 1.5 Outline the lymphatic drainage of the ovary 20 Marks

2. A 55-year man underwent a surgical repair for his chronic duodenal ulcer. During surgery, perforation of posterior part of first part of duodenum, and haemorrhage due to erosion of an artery were observed.
 - 2.1 Outline the anatomical relations of first part of duodenum 40 Marks
 - 2.2 What is the artery most likely eroded in this patient? 10 Marks
 - 2.3 Give reasons for your answer (in above 2.2) 10 Marks
 - 2.4 Write the organs / structures supplied by the artery mentioned above (in 2.2) 20 Marks
 - 2.5 Outline the lymph drainage of duodenum 20 Marks

3. 3.1 A 59-year man with a right dominance heart was admitted to the hospital. Diagnostic tests indicated severe multiple blocks in the anterior interventricular artery. It was decided to perform a coronary bypass surgery. During surgery, sternum was split to access the internal organs / structures.
 - 3.1.1 Briefly describe the term “right dominance heart” 15 Marks
 - 3.1.2 List the main parts of sternum and mention the type of joints lie in between them separately 15 Marks
 - 3.1.3 Mention the structure(s) that connects the sternum with pericardium 10 Marks
 - 3.1.4 Write notes on anterior interventricular artery 30 Marks
- 3.2 List six (6) facial features of Down syndrome 30 Marks

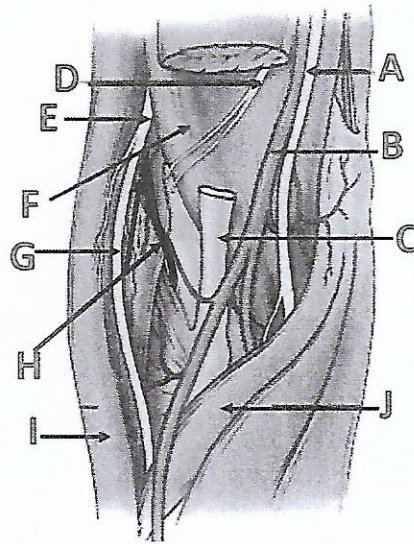
4. Part of vertebral column and structures / ligaments connecting the vertebrae are shown in the figure below. Answer the questions using the diagram



- 4.1 Mention the view of the above diagram 10 Marks
- 4.2 Identify A, B, C, D, E, F, G, H 35 Marks
- 4.3 What layers will be pierced during lumbar puncture? 15 Marks
- 4.4 Mention two (2) indications for lumbar puncture 10 Marks
- 4.5 Name two (2) structures which are passing through 'E' 20 Marks
- 4.6 What are the components of 'C' 10 Marks
- 5 A 30 year old man with chronic infection of right submandibular gland, underwent submandibular adenectomy (submandibular gland excision)
- 5.1 Describe the surfaces and relations of the superficial part of the gland 30 Marks
- 5.2 Mention the muscle that lies medial to the deep part of the gland 10 Marks
- 5.3 List the other structures lying on the lateral surface of the muscle that you mentioned in 5.2 20 Marks
- 5.4 Where does the duct of the above gland open? 10 Marks
- 5.5 Mention the structure possibly get damaged during making skin incision 10 Marks
- 5.6 After gland excision the patient complains of loss of sensation in anterior 2/3 of the tongue. Which structure would have injured during the surgery? 10 Marks
- 5.7 Mention two (2) reasons for high incidence of infection/ calculus formation in submandibular gland and duct 10 Marks
- 6 Regarding rectum
- 6.1 Describe the anatomy, relations, blood supply and lymphatic drainage of the rectum 70 Marks
- 6.2 Describe the mesorectum and its clinical importance 30 Marks

- 7 46-year old male presented with vision impairment. He complained that he bumps with the sides of a doorway and with people on each side. On examination the patient found to have bitemporal hemianopia. The physician assumed the presence of rapidly expanding pituitary tumor. Radiological examination confirmed the diagnosis
- 7.1 Mention the anatomical location of the pituitary gland 10 Marks
- 7.2 With a schematic diagram show the relations of the pituitary gland 20 Marks
- 7.3 Draw the visual field assessment report 20 Marks
- 7.4 Draw and label a line diagram of visual pathway 40 Marks
- 7.5 In the diagram 7.4, indicate the site of lesion leading to bitemporal hemianopia 10 Marks
- 8 A 72-year-old woman was admitted to the emergency room after falling at home. She complained of a severe pain in her right hip. Plain radiograph revealed fracture of the right neck of the femur
- 8.1 What will be the position of the leg after the femoral neck fracture? Explain the anatomical basis 20 Marks
- 8.2 With a line diagram show the sources of blood supply to the femoral head 30 Marks
- 8.3 List the types of femoral neck fracture 20 Marks
- 8.4 Which type of fracture mention in 8.3 would lead to avascular necrosis ? Explain the anatomical basis (write your answer in one sentence) 20 Marks
- 8.5 Mention two (2) other bones that would undergo avascular necrosis after fracture 10 Marks
9. Regarding the Diaphragm
- 9.1 Mention the major parts of the diaphragm and their surface landmarks 20 Marks
- 9.2
- 9.2.1 List the major three (3) openings in the diaphragm 09 Marks
- 9.2.2 Mention the vertebral levels of each opening mentioned in 9.2.1 09 Marks
- 9.2.3 List the structures passes through each opening mentioned in 9.2.1 22 Marks
- 9.3 Name the motor innervation of diaphragm 10 Marks
- 9.4 How the paralysis of the diaphragm could be identified with radiograph? 10 Marks
- 9.5
- 9.5.1 Mention the commonest type of congenital diaphragmatic hernia 10 Marks
- 9.5.2 Give the embryological basis of 9.5.1 10 Marks

10 Schematic diagram of the right cubital fossa is given below. Answer the questions using the diagram



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| 10.1 | Identify A, B, C, D, E, F, G, H, I, J | 40 Marks |
| 10.2 | What is the distribution of structure 'G'? | 10 Marks |
| 10.3 | What would be the clinical presentation if structure 'H' is injured? | 10 Marks |
| 10.4 | Mention the action of Structure 'F' | 10 Marks |
| 10.5 | Describe on anatomical basis, one (1) motor test to ^{Assess} access the integrity of structure 'A' | 20 Marks |
| 10.6 | Mention two (2) clinical uses of structure 'B' | 10 marks |