

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

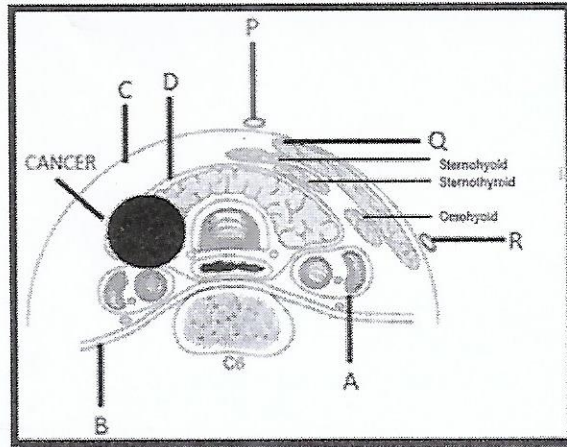
Date :27.06.2022

Time: Three hours

Answer all TEN Questions

Answer EACH QUESTION in a separate answer book

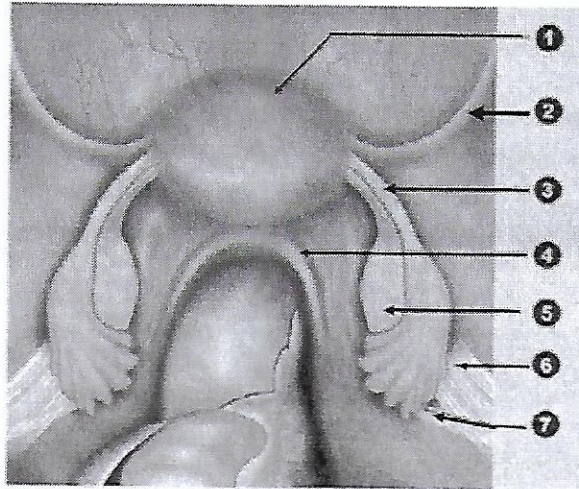
1. A 36 -year- old female presented with a moving lump with swallowing at the anterior triangle of the neck. She was diagnosed as having thyroid cancer and her line diagram of CT scan image is given. She also complains difficulty in swallowing and hoarseness of voice.



Answer the questions 1.1 to 1.6 using the above diagram

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| 1.1 | Mention the view of CT Scan | 10 Marks |
| 1.2 | Write the location of the thyroid cancer in this patient | 10 Marks |
| 1.3 | Identify A,B,C,D (deep fascias) of the neck | 10 Marks |
| 1.4 | List 4 contents of 'A' | 10 Marks |
| 1.5 | Identify P,Q,R | 10 Marks |
| 1.6 | Write the nerve supply and action of 'Q' | 10 Marks |
| 1.7 | List the margins of the anterior triangle of the neck | 10 Marks |
| 1.8 | Explain the anatomical basis for following (write your answer in one sentence) | |
| 1.8.1 | Thyroid lump moving with swallowing | 10 Marks |
| 1.8.2 | Difficulty in swallowing and difficulty in breathing with goiter | 10 Marks |
| 1.8.3 | Hoarseness of voice | 10 Marks |
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2. Regarding Rectum
 - 2.1 List the gross anatomical differences between the sigmoid colon and rectum 10 Marks
 - 2.2 Describe the peritoneal reflections of rectum and outline its clinical importance 20 Marks
 - 2.3 Define mesorectum and give its clinical importance 25 Marks
 - 2.4 Name the structures that can be palpated by digital rectal examination in a healthy adult male 10 Marks
 - 2.5 List two important structures that can be damaged during surgical removal of upper rectum in a male patient 10 Marks
 - 2.6 Mention the embryological origin of rectum 10 Marks
 - 2.7 List the layers of the rectal wall under light microscope 15 Marks

3. A patient underwent Total Laparoscopic Hysterectomy and Bilateral Salpingo-Oophorectomy (TLH + BSO) due to malignancy



Answer the question 3.1 – 3.4 using the above diagram

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| 3.1 | Mention the view of the above diagram | 10 Marks |
| 3.2 | Identify 1, 2, 3, 4, 5, 6 and 7 | 15 Marks |
| 3.3 | Write the embryological origin and attachment of '2' | 10 Marks |
| 3.4 | List the structures pass through '6' | 25 Marks |
| 3.5 | List the structures that should be cut / ligated / cauterized during this procedure | 20 Marks |
| 3.6 | List an important structure that could be damaged during this procedure | 10 Marks |
| 3.7 | Mention the common sites of its damage (structure mentioned in 3.6) in the above procedure | 10 Marks |

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| 4.1 | Outline the joints formed by a typical rib and indicate their types separately | 20 Marks |
| 4.2 | Write notes on anastomosis of coronary arteries | 30 Marks |
| 4.3 | Outline the sites where constrictions are present in the oesophagus | 20 Marks |
| 4.4 | Write notes on autosomal recessive inheritance pattern | 30 Marks |

5

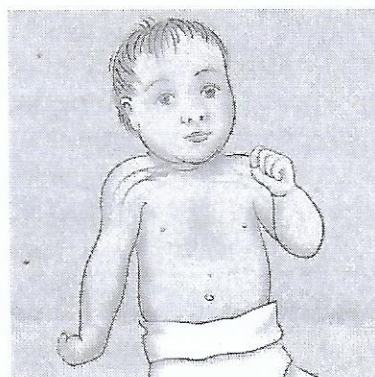
A 26-year female complains of nasal obstruction with unpleasant smell, facial pain and nasal discharge. Doctor noted tenderness over the cheek region, and it was diagnosed as acute maxillary sinusitis.

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| 5.1 | Write short notes on maxillary sinus | 20 Marks |
| 5.2 | Briefly describe the structures present in the lateral wall of the nasal cavity | 30 Marks |
| 5.3 | Write the type of epithelium lining the lateral wall of the nasal cavity | 10 Marks |
| 5.4 | Write short notes on lacrimal apparatus | 30 Marks |
| 5.5 | Mention the paranasal sinus, which is not present at birth | 10 Marks |

6

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| 6.1 | Outline the major somatosensory pathways in the spinal cord with reference to | |
| 6.1.1 | tracts involved | 10 Marks |
| 6.1.2 | sensory modalities in each tract | 10 Marks |
| 6.1.3 | location of synapses (1 st , 2 nd & 3 rd order neurons) | 20 Marks |
| 6.1.4 | level of decussation | 10 Marks |
| 6.1.5 | location of cortical area | 10 Marks |
| 6.2 | Describe the vertebral venous plexus and its clinical importance | 40 Marks |

- 7 A 55-year male had undergone a surgical repair for inguinal hernia on the left side. The surgeon found that it was a direct inguinal hernia.
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| 7.1 | Mention the anatomical reason(s) to support the statement of the surgeon (“direct inguinal hernia”) | 20 Marks |
| 7.2 | Explain on anatomical basis, how to differentiate an inguinal hernia from femoral hernia | 10 Marks |
| 7.3 | Briefly describe the posterior wall of inguinal canal | 25 Marks |
| 7.4 | Write the layers of the abdominal wall likely to be incised to reach the hernial sac | 15 Marks |
| 7.5 | Mention one complication that may result from inguinal hernia | 10 Marks |
| 7.6 | Write the nerve supply to each of the muscles of the anterior abdominal wall separately | 20 Marks |
- 8 A 52-year female patient had an abnormal gait and it was diagnosed as Trendelenburg gait
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| 8.1 | Describe briefly the anatomical reason for this abnormal gait | 35 Marks |
| 8.2 | List the structures pass through the greater and lesser sciatic foramina | 25 Marks |
| 8.3 | Draw and label a diagram of coronal section of the hip joint to show its relations | 30 Marks |
| 8.4 | Name two flexor muscles of the hip joint | 10 Marks |
- 9 A 50-year male presented emergency department with upper abdominal pain, radiates to back and relief by bending forward. He was diagnosed to have acute pancreatitis.
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| 9.1 | Describe the anatomical relations of the pancreas | 50 Marks |
| 9.2 | Describe the blood supply and the lymphatic drainage of the pancreas | 35 Marks |
| 9.3 | Describe the developmental abnormalities of the pancreas and its clinical importance | 15 Marks |
- 10 A newborn child presented with the following right sided deformity after a forceps delivery due to shoulder dystocia



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| 10.1 | Name the above condition | 20 Marks |
| 10.2 | Identify the deformity (characteristic position of the limb) | 30 Marks |
| 10.3 | List the muscles and the nerves involved in the above deformity | 50 Marks |