

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**FIRST EXAMINATION (1) FOR MEDICAL DEGREES – FEBRUARY 2010**  
**ANATOMY PAPER II**

**Date : 01.02.2010**

**Time: 3 hours**  
**9.00AM-12.00**

**Answer all ten questions**

**Marks allotted to each question is given within the brackets**

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| 1.1 | What are the contents of mediastinum?  | (10 marks) |
| 1.2 | Where is the plane of Louis and what is its significance?  | (20 marks) |
| 1.3 | Briefly describe the course of the right phrenic nerve in thorax.                                | (30 marks) |
| 1.4 | Mention the structures forming the base of the heart.  | (10 marks) |
| 1.5 | Outline the course of left coronary artery.  | (20 marks) |
| 1.6 | What are the branches of the thoracic aorta?   | (10 marks) |
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| 2.1 | Name the embryological structures involved in the development of the diaphragm.                  | (15 marks) |
| 2.2 | Mention the main openings in the diaphragm and list the structures passing through each of them. | (30 marks) |
| 2.3 | Enumerate 5 structures making their own small openings in diaphragm.                             | (10 marks) |
| 2.4 | What is the nerve supply to the diaphragm?   | (10 marks) |
| 2.5 | What is the function of the diaphragm?   | (10 marks) |
| 2.6 | Where would a congenital diaphragmatic hernia commonly arise?                                    | (10 marks) |
| 2.7 | What other type of diaphragmatic hernia do you know about?                                       | (15 marks) |

A 60 year old woman had a palpable breast mass in left upper outer quadrant. There was dimpling of skin in the area over the lump. Pathological examination revealed intraductal carcinoma in the needle biopsy.

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| 3.1 | Define the base of the breast?  | (10 marks) |
| 3.2 | Describe the duct and lobular system in the breast.                         | (20 marks) |
| 3.3 | What is Cooper's ligament?  | (10 marks) |
| 3.4 | Explain the anatomical basis of skin change in the breast over the lump.    | (20marks)  |
| 3.5 | Which lymph nodes are most likely to be affected first in breast cancer?    | (10 marks) |
| 3.6 | What are the methods of classification of the lymph nodes mentioned in 3.5? | (30 marks) |

4. A 37 year old man, while driving a car, thrown forward by a sudden break. His left knee strikes the dashboard violently and he feels a painful pop in his left hip. Radiograph revealed a posterior hip dislocation.
- 4.1 Enumerate the stabilizing factors of hip joint. (30 marks)
- 4.2 Which is the weakest position of the hip joint in seated position? (20 marks)
- 4.3 Name the ligament which would be torn in posterior dislocation. (10 marks)
- 4.4 What is the main blood supply to head of femur and how it reaches the joint? (25 marks)
- 4.5 What clinically important structure is at potential risk in posterior dislocation and mention its origin? (15 marks)
5. A 30 year old man was admitted to the surgical casualty ward with a colicky abdominal pain of right side which was radiating from loin to groin. The clinical diagnosis was ureteric stone
- 5.1 Briefly describe the course and relations of abdominal ureter. (30 marks)
- 5.2 Illustrate the most possible sites at which the ureteric stone can lodge. (15 marks)
- 5.3 Name the bony landmarks that help in locating the stone in the ureter in plain x-ray. (15 marks)
- 5.4 What is the blood supply to the ureter? (20 marks)
- 5.5 Describe the histology of ureter. (20 marks)
6. A 60 year old man with a history of chronic duodenal ulcer was admitted to the hospital in an unconscious state. This was diagnosed as perforation of the 1<sup>st</sup> part of the duodenum with haemorrhage due to erosion of an artery.
- 6.1 Which artery is prone to be eroded in the perforation of duodenal ulcer? (10 marks)
- 6.2 Describe the anatomical relations of 1<sup>st</sup> part of the duodenum. (40 marks)
- 6.3 Enumerate the endoscopic appearance (internal appearance) of the normal 2<sup>nd</sup> part of the duodenum. (20 marks)
- 6.4 Brief out the development of duodenum and list the anomalies related to it. (30 marks)
7. A 12 year old boy is diagnosed to have an upper trunk brachial plexus injury, after falling on shoulder
- 7.1 What is the most likely etiology for this condition? (10 marks)
- 7.2 Name another condition leading to upper brachial injury. (10 marks)
- 7.3 List the nerves affected by this injury and the muscles supplied by them (40 marks)
- 7.4 List the actions of those muscles mentioned in 7.3 (30 marks)
- 7.5 Describe the position of the upper limb in this condition and how it is called? (10 marks)

- 8.1 Write the name of the bones forming the nasal cavity (20 marks)
- 8.2 List the structures in the lateral wall of the nasal cavity. (30 marks)
- 8.3 Write short notes on the Littles area. (15 marks)
- 8.4 Briefly describe the development of nasal septum. (20 marks)
- 8.5 Mention the histological features of the olfactory epithelium. (15 marks)
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- 9.1 Write briefly the relations of the prostate gland. (30 marks)
- 9.2 What are the coverings of the prostate gland? (20 marks)
- 9.3 Name the zones involved in the benign prostatic hypertrophy and carcinoma of the prostate. (20 marks)
- 9.4 Mention the course of ejaculatory ducts inside the prostate. (10 marks)
- 9.5 What is the internal appearance of prostatic urethra and its clinical importance? (20 marks)
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- 10.1 Describe the anatomical location of the thalamus. (30 marks)
- 10.2 How do the nuclei of thalamus divide functionally? (20 marks)
- 10.3 Briefly describe the development of the thalamus. (15 marks)
- 10.4 Name any three tracts that pass through the thalamus. (15 marks)
- 10.5 Trace the pain pathway originating from the right thumb to cerebral cortex. (20 marks)

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