FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA, GALLE

SECOND EXAMINATION FOR MEDICAL DEGREES – OCTOBER 2018

ANATOMY- PAPER II

THREE HOURS (2.00 - 5.00 P.M.)

Answer all FIVE questions **MONDAY 08TH OCTOBER 2018**

Answer EACH QUESTION in a SEPARATE BOOK

Use diagrams where necessary

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1. A 48 year-old man was brought to the surgical casualty with a stab injury to the mid thigh passing through the adductor canal. There was spurting of arterial blood from the wound. On examination, his arterial pulses below the wound were weak and there was loss of sensation at the medial side of the foot and the big toe.

   1.1 1.1.1 What is the artery injured? (05 marks)

   1.1.2 Name the arterial pulses that were felt weakly. (15 marks)

   1.1.3 Explain the possible anatomical basis for the loss of sensation of the area mentioned. (15 marks)

   1.2 Describe the anatomy of the adductor canal. (40 marks)

   1.3 Describe the histology of the artery stated in 1.1.1 (25 marks)

2. A chest radiograph of a new born baby revealed a large defect on the left side of the diaphragm. Abdominal viscera have entered the thorax through this defect. The baby was diagnosed to have a congenital diaphragmatic hernia.

   2.1 2.1.1 Name two abdominal viscera that you would expect to observe in the thoracic cavity of this baby. (10 marks)

   2.1.2 Explain the embryological basis for the congenital diaphragmatic hernia. (20 marks)

   2.2 Describe origin, insertion, blood supply and innervation of the diaphragm. (35 marks)

   2.3 State the openings of the diaphragm and structures passing through them. (15 marks)

   2.4 Describe the light microscopic appearance of gastro-duodenal junction. (20 marks)

3. A 46 year-old lady was investigated for the complaint of vaginal bleeding of 3 months duration. Later she was diagnosed as having carcinoma of the cervix with involvement of adjacent lymph nodes. Patient was managed with a hysterectomy (surgical removal of uterus).

3.1	Draw a labeled diagram to show the different parts of the uterus.	(15 marks)
3.2	Name the blood vessels that need to be ligated during the surgery.	(10 marks)
3.3	Name the structure most likely to be damaged during the ligation of those vessels.	(05 marks)
3.4	State the lymphatic drainage of the uterus.	(20 marks)
3.5	Describe the light microscopic appearance of cervix.	(25 marks)
3.6	Describe briefly the development of uterus.	(25 marks)

4. A 30 year-old male was admitted to the surgical casualty ward with a gunshot injury on the left side of his neck over the posterior triangle. Following recovery from surgery, the man was unable to turn his head to the right side and couldn't shrug his left shoulder.

4.1	4.1.1	What is the structure damaged?	(10 marks)
	4.1.2	How do you surface mark the structure mentioned in 4.1.1?	(05 marks)
	4.1.3	Explain the anatomical basis of his inability to turn the head to the right side.	(15 marks)
4.2		Describe the gross anatomy of posterior triangle.	(30 marks)
4.3		Describe briefly the light microscopic appearance of sternocledomastoid muscle.	(20 marks)
4.4		Outline the embryological development of paraxial mesoderm.	(20 marks)

5. A 30 year-old driver consulted an eye surgeon complaining of visual impairment. He was unable to see the vehicles on his right and left sides. On examination, he was found to have bitemporal hemianopia. MRI scan of the brain revealed a tumour in the middle cranial fossa.

5.1	Using your knowledge on anatomy state the site of the tumour.	(10 marks)
5.2	Describe the optic pathway using a labeled diagram.	(20 marks)
5.3	Explain why he has developed bitemporal hemianopia.	(30 marks)
5.4	Describe briefly the light microscopic appearance of posterior pituitary.	(20 marks)
5.5	Outline the embryological development of the eye.	(20 marks)