UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES –June 2009

Physiology: Paper II

ANSWER ALL THE TEN QUESTIONS
ANSWER EACH PART IN SEPARATE ANSWER BOOK
Date: 10.06.09.
Time: 03 hours

Part A

1.	A 30 year old male patient warded at the hospital had oedema in his left foot.	
1.1	Define oedema	(20 Marks)
1.2	List the factors that cause oedema	(20 Marks)
1.3	Explain the physiological mechanisms leading to oedema in the above patient	(60 Marks)
2.	Write short notes on:	
2.1	Tetani	(35 Marks)
2.2	Bhor effect	(35 Marks)
2.3	PCV	(30 Marks)
3.	A 30 year old non pregnant was using “pill” to delay her menstrual period.	
3.1	Define menstrual cycle	(15 Marks)
3.2	List the phases of menstrual cycle	(15 Marks)
3.3	List the hormones controlling menstrual cycle	(20 Marks)
3.4	Briefly explain the physiological basis of using the “pill” to delay menstrual period	(50 Marks)
4.	Write short notes on,	
4.1	Gigantism	(30Marks)
4.2	Galactorrhoea	(35 Marks)
4.3	Myxoedema	(35 Marks)
5.	A 40 year old male patient warded at the hospital had obstructive jaundice and steatorrhoea	
5.1	Define jaundice	(20 Marks)
5.2	List the other two types of jaundice	(10 Marks)
5.2	List three causes of obstructive jaundice	(15 Marks)
5.3	Briefly explain the physiological mechanisms which lead to steatorrhoea in the above patient	(55 Marks)

Part B

6.	Describe the physiological basis of the following:	
6.1.	Patients with kidney diseases develop hypertension.	(40 Marks)
6.2.	Cardiac output of patients with heart rate of about 200 / min. will be less than normal.	(30 Marks)
6.3.	When ECG is recorded, the patient is expected to be under complete physical relaxation.	(30 Marks)
7.	Mr. Raman, 40 years old, was admitted to the hospital with a history of difficulty in breathing for the last 2 days. He gets similar attacks every time he cleans the roof and wall of the house. He was cyanosed and the respiratory rate was 40/minute. He was finding it more difficult to expire than to inspire. The peak expiratory flow was 75 liters/minute.	
7.1.	Name the condition.	(10 Marks)
7.2.	Describe the physiological basis of the following symptoms and signs observed in this patient.	
7.2.1.	Cyanosis	(15 Marks)
7.2.2.	Respiratory rate	(25 Marks)
7.2.3.	Expiration more difficult than inspiration	(25 Marks)
7.2.4.	Peak expiratory flow	(25 Marks)
8.	Describe the physiological basis of oligurea observed in the following conditions / situations	
8.1.	Haemorrhage	(30 Marks)
8.2.	Intravascular haemolysis	(30 Marks)
8.3.	Hot and dry weather	(40 Marks)
9.1.	List two tonic receptors	(10 Marks)
9.2.	Describe the mechanisms that inhibit pain sensation	(30 Marks)
9.3.	Explain the change in knee jerk immediately and after two weeks of spinal cord injury.	(35 Marks)
9.4.	Mention five (5) signs of Cerebella lesion	(25 Marks)
10.1.	Describe the visual pathway from eye to the cortex	(30 Marks)
10.2.	Describe the importance of melanin in the eye for clear vision	(30 Marks)
10.3.	Describe the conduction of sound across the middle ear	(40 Marks)