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Family Name					
Given Name/s					
Student Number					
Teaching Period	Semester 1, 2018				

MLS300 – Cell Pathology	DURATION	
	Reading Time:	10 minutes
	Writing Time:	180 minutes
INSTRUCTIONS TO CANDIDATES		
<p>The examination has A, B & C sections Section A: Suggested Time: 60 minutes Answer ALL 40 questions on the answer booklet provided. Marks: 40</p> <p>Section B: Suggested Time: 80 minutes Answer ALL 8 questions in the booklets provided. Marks: 40</p> <p>Section C: Suggested Time: 40 minutes Answer ALL 2 questions in the booklets provided. Marks: 20</p> <p>Section A must be answered on the Multiple-Choice Answer booklet. Please ensure that your name and student number are clearly indicated on your Answer Sheet and at the top of this examination paper. Section B and C must be answered in booklets.</p> <p>Note that questions ARE NOT of equal value. Read ALL questions carefully.</p>		
EXAM CONDITIONS		
<p><u>You may begin writing from the commencement of the examination session.</u> The reading time indicated above is provided as a guide only.</p>		
This is a CLOSED BOOK examination		
Any non-programmable calculator is permitted		
No handwritten notes are permitted		
No dictionaries are permitted		
ADDITIONAL AUTHORISED MATERIALS	EXAMINATION MATERIALS TO BE SUPPLIED	
No additional printed material is permitted	1 x 20 Page Book 1 x 5-Multiple Choice Answer Sheet 1 x Scrap Paper	

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DOUBLE-SIDED.**

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Section A
Multiple Choice Questions

Section B
Short Answer Questions
Total No of Marks for this section: 40

Answer **ALL** questions in this section should be answered in the Answer Booklet provided.

Marks for each question are indicated.

Suggested Time allocation for Section B: 80 mins

Question 1

Name at least 5 mechanisms responsible for cell injury and explain their mode of action. You may include diagrams to support your answer.

(Marks: 5)

Question 2

Write short notes on atherosclerosis under the following headings:

(a) Definition

(Marks: 1)

(b) Pathogenesis

(Marks: 2)

(c) Risk factors

(Marks: 2)

(Total Marks: 5)

Question 3

Describe the stages of lobar pneumonia, regarding the gross and microscopic findings in a tabulated form.

Stages	Gross appearance	Microscopic appearance

(Marks: 6)

Question 4

Discuss aneurysm under the following headings:

(a) What is an aneurysm

(Marks: 1)

(b) Describe different types of aneurysms

(Marks: 2)

(c) What are the causes of aneurysms?

(Marks: 2)

(Total Marks: 5)

Question 5

Osteoarthritis and Rheumatoid Arthritis are common causes of joint pain. Compare the two in terms of the following:

(a) Clinical presentation

(Marks: 1)

(b) Pathophysiology

(Marks: 2)

(c) Diagnosis

(Marks: 2)

(Total Marks: 5)

Question 6

The pathology report from a cervical punch biopsy states “*cervical intraepithelial neoplasia I*”. Explain what is meant by cervical intraepithelial neoplasia. You may use a diagram to support your answer.

(Marks: 5)

(Total Marks: 5)

Question 7

Define Glomerulonephritis.

(Mark: 1)

Describe Pathophysiological features of ANY TWO (2) types of glomerulonephritides.

(Marks: 4)

(Total Marks: 5)

Question 8

List two (2) examples of degenerative diseases affecting the central nervous system.

(Marks: 1)

Describe gross and microscopic features of any one (1) degenerative disease of the CNS.

(Marks: 3)

(Total Marks: 4)

END OF SECTION B

Section C
Case-based Questions
Total No of Marks for this section: 20

Answer **ALL** questions in this section should be answered in the Answer Booklet provided.

Marks for each question are indicated.

Suggested Time allocation for Section B: 40 mins

Question 1

A 45-year-old obese man presents with a 2-year history of chest discomfort following heavy meals. He describes the discomfort as a substernal burning sensation that radiates to his neck. The discomfort worsens when he is lying down in bed at night. He mentions that he also has a chronic cough and hoarse voice in the morning.

(a) What is the differential diagnosis?

(Marks: 3)

Physical examination is significant for obesity. There is no chest wall tenderness. Cardiac examination is unremarkable, except for auscultating bowel sounds in the patient's chest. A cardiac stress test is negative for inducible ischemia.

(b) What is the patient's likely diagnosis and discuss its pathophysiology?

(Marks: 5)

(c) What are the possible complications if his condition persists for long time?

(Marks: 2)

(Total Marks: 10)

Question 2

A 45-year-old man presents to his GP with the complaints of breathlessness and cough for the last 3 months. On further questioning, he informs his GP that he is also having night sweats and have noticed significant weight loss recently. Past medical history reveals that his father was diagnosed with TB almost 35 years ago. Details of his father's treatment are not available. The GP orders a Mantoux test and chest X-ray.

Chest X-ray shows bilateral apical lesions consistent with the diagnosis of secondary tuberculosis.

- (a) Discuss the natural history of Tuberculosis in a patient who gets exposed to TB in childhood, describing pathological features of each type. You can use diagrams and tables to elaborate your answer.

(Marks: 6)

- (b) If untreated, what are the possible consequences in this patient?

(Marks: 4)

(Total Marks: 10)

END OF EXAM