



FACULTY OF ALLIED HEALTH SCIENCES  
 UNIVERSITY OF RUHUNA, GALLE  
 DEPARTMENT OF NURSING  
 1<sup>st</sup> END SEMESTER EXAMINATION-11<sup>th</sup> BATCH-2019

Physiology (NUR 1122)-SEQ

Date: 23<sup>rd</sup> September 2019 Time: 10.30 a.m.-12.00 noon Duration: 1 1/2 hour

Index Number: .....

PART A

1

1.1 Define vital capacity. (10 marks)

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1.2 State **three (3)** other lung volumes/capacities that can be measured using an ordinary spirometer. (15 marks)

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1.3 Explain the physiological basis for hypoxia seen in high altitude. (15 marks)

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2.State **one(1)** effects on the heart due to increase in

2.1 sympathetic discharge. (3 marks)

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2.2 parasympathetic discharge. (3 marks)

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3. Name **two(2)** hormones that causes tachycardia. (4 marks)

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4. A patient was admitted to a hospital with severe bleeding following a road traffic accident. His blood pressure was 80/54 mmHg and pulse rate was 160/min. In addition, his skin was cold and pale.

4.1 Calculate his mean arterial pressure (10 Marks)

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4.2 Explain the physiological basis for his heart rate (25 marks)

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4.3 Explain the physiological basis for cold and pale skin (15 Marks)

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PART B

1. What is meant by cardiac output? (15 marks)

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2. Write the equation which shows the relationship between stroke volume, cardiac output and heart rate. (10 marks)

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3. Draw the pressure volume curve of the left ventricle showing different phases. (25 marks)





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**PART C**

1.1 Draw and label a diagram to illustrate the defecation reflex. (40 Marks)

1.2 Describe voluntary facilitation of defecation (15 marks)

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1.3 Describe voluntary inhibition of defecation (10 marks)

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1.4 State **three (3)** major types of bacteria colonized in the colon. (10 marks)

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1.5 Define steatorrhoea (10 marks)

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1.6 State **three (3)** causes for steatorrhoea (15 marks)

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