



INSTITUTE OF INDIGENOUS MEDICINE, UNIVERSITY OF COLOMBO
DEGREE OF BACHELOR OF UNANI MEDICINE AND SURGERY
LEVEL I FIRST SEMESTER SECOND SUPPLEMENTARY EXAMINATION
JANUARY 2022
AS 1102 - PHYSIOLOGY

Date: 12.01.2022
Time: 01 45 pm to 4.15 pm

Index No

Answer all questions.

Part I - Structured Questions

1. i. What do you understand by the term **static lung volumes**? (1 Mark)

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ii. List the static lung volumes (0.5 x 4 = 2 Marks)

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iii. List the lung capacities which can be measured by Spirometry (0.5 x 4 = 2 Marks)

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iv. Mention three functions of the pulmonary circulation (1 x 3 = 3 Marks)

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2.

i. Define the following terms

a. Pulmonary ventilation

(1 mark)

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b. Alveolar ventilation

(1 Mark)

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ii. Briefly explain the steps of

a. Diffusion (blood-gas exchange) occurs across the blood-gas barrier?

(1 x 3 = 3 Marks)

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b. Oxidative respiration

(1 x 3 = 3 Marks)

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3.

i. Define the following terms

a. Glomerular Filtration Rate (GFR)

(1 Mark)

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b. Renal Auto regulation

(1 Mark)

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ii. What is "osmosis"?

(1Mark)

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iii. Briefly explain how aldosterone acts on renal tubule? (2 Marks)

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iv. What is Renal Clearance? (1 Mark)

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4.

i. Name four factors which affects the affinity of haemoglobin for oxygen (0.5 x 4 = 2 Marks)

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ii. List four functions of Haemoglobin (0.5 x 4 = 2 Marks)

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iii. Mention four effects of carbon monoxide poisoning (0.5 x 4 = 2 Marks)

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5. Briefly explain the following

i. How bile acids help to form micelles? (2 Marks)

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ii. Steatorrhoea (2 Marks)

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iii. Icterus

(2 Marks)

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6. i. List the main steps which are involved in the urine formation (0.5 x 4 = 2 Marks)

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ii. Mention the steps of reabsorption in the distal convoluted tubules (2 Marks)

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iii. What is Diabetes Insipidus

(2 Marks)

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Part II – Essay Questions

1. Regarding respiratory regulation of acid-base balance, discuss the role of

i. Central chemoreceptors (10 Marks)

ii. Peripheral chemoreceptors (10 Marks)

2. Discuss effects of insulin in the following tissues

i. skeletal muscle (8 Marks)

ii. adipose tissue (6 Marks)

iii. hepatocyte (6 Marks)

Date;12.01.2022
