



**EXAMINATIONS**  
Institute of Indigenous Medicine  
University of Colombo

**INSTITUTE OF INDIGENOUS MEDICINE, UNIVERSITY OF COLOMBO**  
**DEGREE OF BACHELOR OF UNANI MEDICINE AND SURGERY**  
**LEVEL I – FIRST SEMESTER SUPPLEMENTARY EXAMINATION**

**NOVEMBER - DECEMBER 2019**  
**AS 1102 – PHYSIOLOGY - I**

**Date: 12.12.2019**  
**Time: 2 ½ hours**  
**1.45 p.m. – 4.15 p.m.**

**INDEX NO:**

**Answer all questions.**

**Part I - Structured Questions**

1.
  - i. List the types of hypoxia (02 Marks)  
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  - ii. Write the definition of the following
    - (a) Dyspnoea (01 Mark)  
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    - (b) Hypercapnia (01 Mark)  
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  - iii. (a) What is Pneumothorax? (01 Mark)  
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(b) Write two symptoms of Pneumothorax (01 Mark)

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iv. (a) Define the term Asthma (01 Mark)

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(b) List two abnormalities that present in Asthma (01 Mark)

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v. Write the definition of the following conditions

(a) Emphysema (01 Mark)

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(b) Cystic fibrosis (01 Mark)

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2.

i. List three physiological adaptations of the kidneys for the maintenance of net acid excretion (1.5 Marks)

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ii. List three actions of parathyroid hormone in the kidney to maintain the acidification of urine (1.5 Marks)

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## Part II – Essay Questions

1. (i) Explain the main steps which are involved in urine formation (08 Marks)  
(ii) What is Glomerular Filtration Rate (GFR) (04 Marks)  
(iii) Explain how reabsorption occurs in the distal convoluted tubules (04 Marks)  
(iv) Briefly explain the disease “Diabetes Insipidus” (04 Marks)
  
2. (i) Enumerate the primary and secondary lung volumes (04 Marks)  
(ii) Briefly explain the following terms (3×4= 12 Marks)
  - (a) Total ventilation
  - (b) Alveolar ventilation
  - (c) Anatomical dead space
  - (d) Alveolar dead space  
(iii) Briefly explain the main effects of increased PCO<sub>2</sub> on Central Nervous System (04 Marks)
  
3. (i) Explain how the secretion of the pancreatic juice is regulated (06 Marks)  
(ii) Write short notes on the following
  - (a) Bile acids (04 Marks)
  - (b) Cholecystokinin (06 Marks)
  - (c) Peptic ulcer disease (04 Marks)

12.12.2019

iii. Briefly explain the term “ Renal Auto regulation” (02 Marks)

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iv. What is osmosis (02 Marks)

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v. Explain the term “ Transport Maximum” in relation to glucose in the kidneys (03 Marks)

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