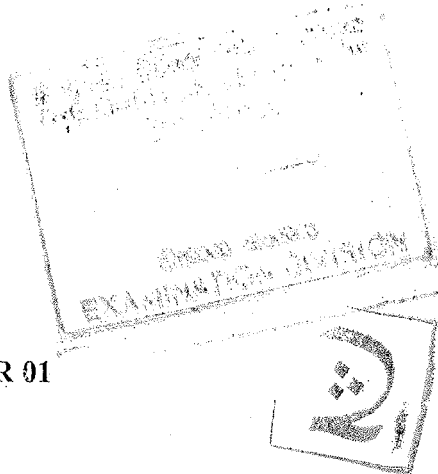


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THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF BASIC SCIENCES
ACADEMIC YEAR 2024/2025 – SEMESTER 01
BACHELOR OF PHARMACY HONOURS



BSU3431 – HUMAN PHYSIOLOGY – LEVEL 03
FINAL EXAMINATION

DURATION: THREE HOURS

DATE: 02nd MAY 2025

TIME: 9.30 A.M. – 12.30 P.M.

INDEX NO:

Part B – Structured Essay Questions (40 marks)

Write the answer in the spaces provided.

01.

- a. Briefly describe the classification of the major membrane transport mechanisms. (06 marks)

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- b. Define the following. (04 marks)

- i. Resting membrane potential

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- ii. Action Potentials

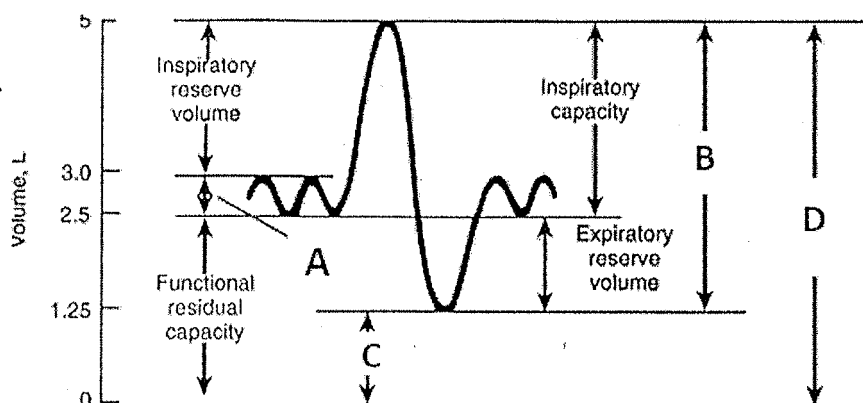
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02. The following diagram shows the lung volumes and capacities.



a. Identify the labelled parts (04 marks)

- A.....
 B.....
 C.....
 D.....

b. Define the terms hypoventilation and hyperventilation (03 marks)

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c. Name the physical factors that influence pulmonary ventilation (03 marks)

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03.

a. Draw a labelled diagram of an antibody (03 marks)

- b. List the major types of antibodies (03 marks)

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- c. Draw a diagram that shows the primary and secondary immune responses.
(04 marks)

04.

- a. Draw a labelled diagram of a normal ECG (03 marks)

- b. Describe the regulation of pancreatic juice secretion using a flowchart.
(04 marks)

- c. Name the major enzymes present in pancreatic juice. (03 marks)

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INDEX NO:

Part C – Essay Questions (30 marks)

Answer all questions.

Write the answer in the books provided.

01.

- a. Describe the structural adaptations of the oesophagus for its function.
(10 marks)
- b. Explain the basis of following statement. "In the lower limbs veins contain valves while arteries do not have such valves"
(05 marks)

02.

- a. Give a brief description on cerebrospinal fluid. (05 marks)
- b. Briefly explain the clinical significance of lumbar puncture (05 marks)
- c. Write a short note on types of deafness. (05 marks)