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School of Biomedical Science
Bachelor of Science in Clinical Nutrition and Dietetics
Mid Term Examination - Nov 2023

Duration : 90 Minutes
Max Marks : 50

Sem III - C2UF307C - Human Physiology II

General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) Relate the process of alveolar ventilation to maintaining appropriate levels of oxygen and carbon dioxide in the blood, highlighting the relationship between lung function and gas exchange. K2 (2)
- 2) Show the transport of gases across the alveolar membrane and into the blood, demonstrating how this process is critical for efficient gas exchange. K1 (3)
- 3) Discuss the regulation of water balance in the body by the endocrine system, specifically focusing on the role of antidiuretic hormone (ADH) and its impact on urine production and fluid levels. K2 (4)
- 4) Translate the complex concept of acid-base disorders and their relationship to electrolyte imbalances into a simplified explanation K2 (6)
- 5) Build and explain the factors influencing vital capacity of the lungs and how it impacts an individual's respiratory function and overall health. K3 (6)
- 6) Construct external respiration flow diagram, describe the movement of oxygen, and construct flow diagram of internal respiration, describe the movement of carbon dioxide. K3 (9)
- 7) Classify abnormal constituent of urine and explain atleast one disease? K4 (8)
- 8) Analyse the mechanisms of gas transport and exchange in the human respiratory system, considering factors like diffusion gradients and solubility. Describe oxygen and carbon dioxide transport in blood, the oxygen-hemoglobin dissociation curve, and factors influencing gas exchange efficiency K4 (12)

OR

Analyze micturition: relationships, anatomy, and regulatory mechanisms. K4 (12)