

Life Sciences, Grade 11, Excretion

Written questions

Question 1: Excretion and Metabolic Waste

1.1 Define "Excretion" and differentiate it from "Egestion," providing an example of a substance removed by each process.

1.2 List the four main excretory substances produced by the body and state how each is transported and excreted.

1.3 Explain the process of "Deamination" and why it is a necessary process in the body.

Question 2: Structure and Function of the Urinary System

2.1 Describe the pathway of urine formation and excretion, starting from the renal artery and ending with micturition (urination).

2.2 Explain the process of "Ultrafiltration" in the renal corpuscle, naming the structures involved and the substances that pass through.

2.3 Discuss how "Selective Reabsorption" occurs in the renal tubules, focusing on where glucose, amino acids, and most water are reabsorbed.

Question 3: Regulation of Water and Salt Balance

3.1 Explain the role of ADH (Antidiuretic Hormone) in maintaining water balance in the body when there is too little water.

3.2 Describe the effect of ADH on the walls of the Distal Convolute Tubule (DCT) and Collecting Duct (CD), and how this influences urine concentration.

3.3 Explain how the hormone "Aldosterone" regulates salt (sodium) balance in the blood when there is a shortage of sodium.

