



QUESTION WORKBOOK

The liver: detoxification, deamination and the making of urea

Hormonal communication, plant responses and homeostasis · Unit B15

OCR A 5.1.2 · Edexcel B 9.9 ii · CAIE 14.1

7 questions · 24 marks

PRINT EDITION

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SECTION A · Short, 1 to 2 marks**A1**

LD-Q7

State what is meant by excretion, and state why the passing out of faeces is not an example of it. [2]

SECTION B · Standard, 3 to 5 marks**B1**

LD-Q1

Describe what happens to an amino acid that the body does not need, from deamination through to the urea leaving the liver, naming where each step of the ornithine cycle takes place. [5]

B2

LD-Q2

Describe the structure of a liver lobule, and describe the direction in which blood and bile each travel through it. [4]

B3 Explain how the liver deals with the alcohol in a drink, and explain why heavy drinking over many years leads to fat accumulating in the liver. [4]
LD-Q3

B4 Name the two blood vessels that carry blood into the liver and the vessel that carries blood away from it, stating what the blood in each of the incoming vessels contains. [3]
LD-Q4

B5 A freshwater fish excretes its nitrogenous waste as ammonia, while a mammal spends ATP converting the same ammonia into urea. Explain why the mammal does so. [3]
LD-Q5

B6 A patient with advanced liver damage has a blood urea concentration below the normal range and a blood ammonia concentration above it. Suggest an explanation for both measurements, and suggest why the urea reading could give a misleading impression of how well the kidneys are working. [3]
LD-Q6

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