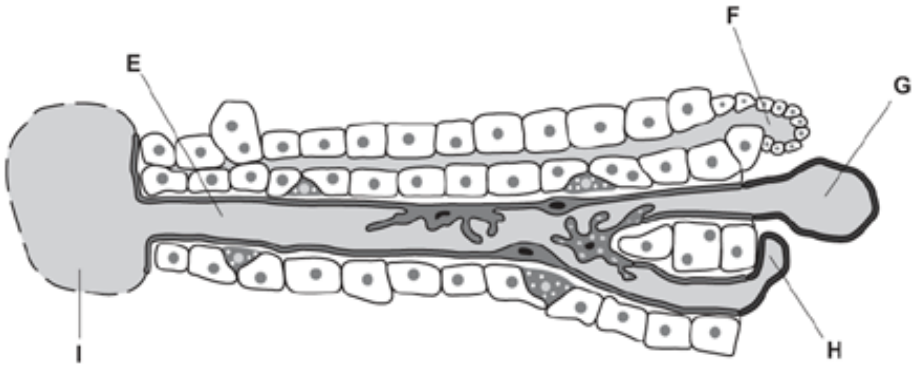
1. The diagram shows part of a liver lobule.

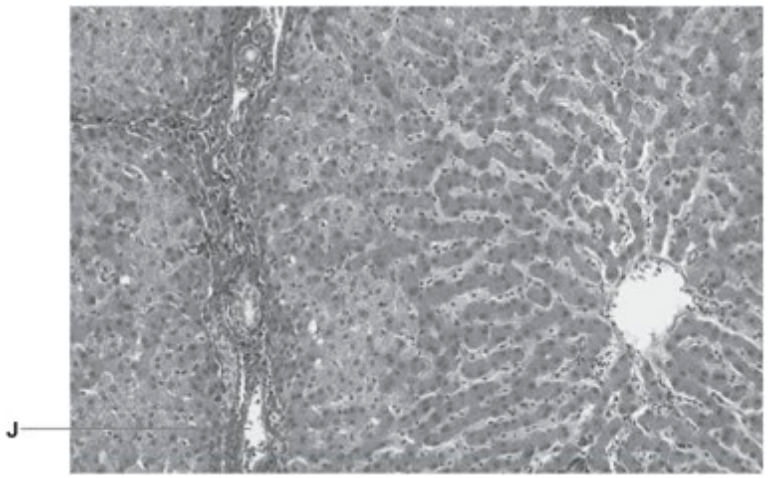


Which statement about liver function is correct?

A Blood flows from **I** towards **G**.
B **H** carries blood arriving from the digestive system.
C Hepatocytes produce urea that flows into **F**.
D Toxic substances enter liver cells from the blood at **E**.

Your answer ☐ **[1]**

2. The photomicrograph shows a stained section of liver tissue.



What is the structure labelled **J**?

A Hepatic artery
B Hepatic portal vein
C Hepatic vein
D Sinusoid

Your answer ☐ **[1]**

3. Which statement describes urea production in the liver?

A Amino acids enter the ornithine cycle.
B Ammonia and carbon dioxide combine to make urea in the Krebs cycle.
C Ammonia is produced by the deamination of amino acids.
D The ornithine cycle makes urea less harmful

Your answer ☐ **[1]**

4(a). An adult was advised to change their diet to reduce their body mass before undergoing surgery.

Over a period of several weeks their body mass reduced by 1 kg.

Suggest what happened to the 1 kg of body mass.

[2]

(b). Which statements about excretion and homeostasis are true, and which are false?

Tick (✓) **one** box in each row.

Statement	True	False
The liver, kidneys, lungs and skin are all involved in excretion.		
Carbon dioxide is formed by deamination of excess amino acids.		
Urea is less soluble and less toxic than ammonia.		
Breakdown of haem from haemoglobin produces bile pigments that are excreted in the faeces.		

[2]

END OF QUESTION PAPER