

0	2	.	1
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[5 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

0	2	.	2
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[2 marks]

- 1 _____
- 2 _____

0 2 . 3

Ziconotide was injected at $3 \text{ ng kg}^{-1} \text{ h}^{-1}$ for 8 days into each patient.

$$1 \text{ ng} = 1 \times 10^{-9} \text{ g}$$

Calculate the total mass in grams of ziconotide injected after 8 days into a patient with a body mass of 82 kg

Show your working.

[2 marks]

Answer _____ g

0 2 . 4

When the patients recorded the intensity of pain, suggest **two** reasons why it was important to use a statistically valid scale.

[2 marks]

1 _____

2 _____

2. No.6

0 6 . 1

Describe and explain how **three** features of the cells in the proximal convoluted tubule allow the rapid reabsorption of glucose into the blood.

[3 marks]

1 _____

2 _____

3 _____

0 6 . 2

Antidiuretic hormone (ADH) binds to **V** receptors found in cell-surface membranes in two parts of a nephron.

Name the **two** parts of a nephron where **V** receptors are found.

[1 mark]

0 6 . 3

V receptors only bind with ADH.

Suggest and explain why.

[2 marks]

0	6	.	4
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A decrease in blood pressure stimulates the release of ADH.

Give the location of the receptors that detect a decrease in blood pressure and explain how the release of ADH will affect blood pressure.

[3 marks]

Location _____

Explanation _____
