

2 The liver is an organ with many functions.

(a) (i) Give **one** difference between an organ and a tissue.

(1)

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(ii) Suggest **one** way in which tissues and organs are similar.

(1)

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(b) In a study of cell ultrastructure, a student was able to separate various cell organelles from a sample of liver cells. However, she was unsure of her ability to correctly identify the **three** organelles that she found. She produced a table containing a description of each organelle. Complete the table by writing in the correct name of each organelle.

(3)

Description of organelle	Name of organelle
Several curved membrane-bound sacs of decreasing size	
A pair of cylinders arranged at right-angles to each other	
Small spheres with a single membrane that are filled with hydrolytic enzymes	



(c) In the space below, draw a fully labelled diagram of a nucleus, as seen using an electron microscope.

(4)

(Total for Question 2 = 9 marks)

