N5 Biology CB1 Homework

**B**

**A**

**C**

1. Name and give the function of the organelles labelled in the animal cell opposite. [4]
2. Name 3 structures you might find in a plant cell but not in an animal cell. [3]

**D**

1. Identify one similarity and one difference between a plant cell and a fungal cell. [2]
2. A newly discovered species was being classified.

*The organism is unicellular, has no organelles and several plasmids.*

Should it be classified as an animal, a plant, a bacterium or a fungus? Why? [2]

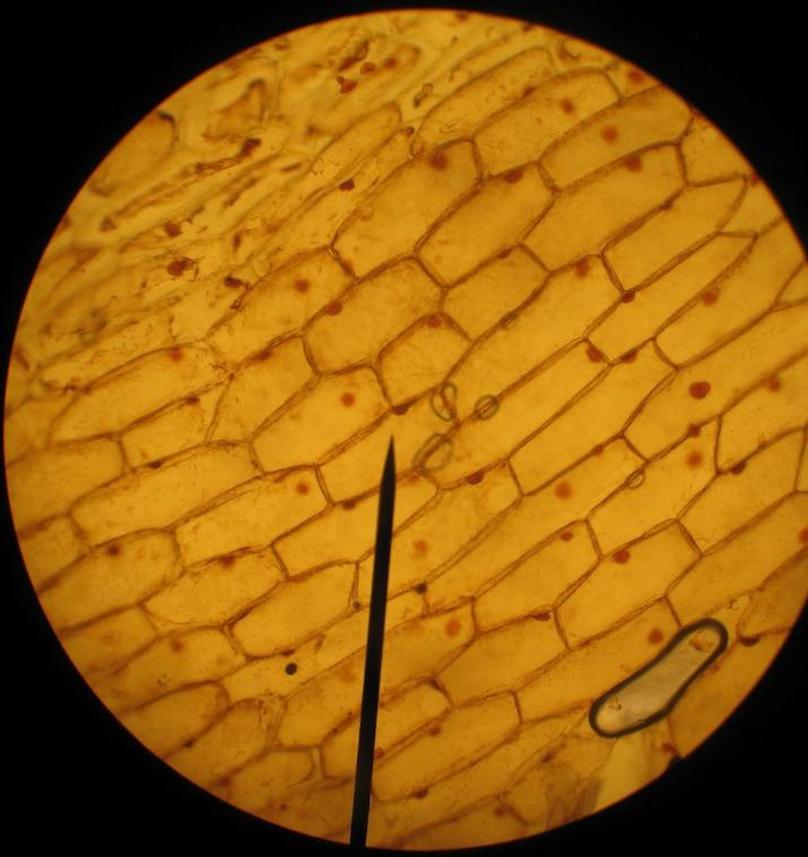
1. When examining the cells of a carrot under the microscope, which plant organelle would you not expect to see? Why? [CLUE: think about where a carrot grows] [2]

6. Some organelles within a human liver cell were examined and counted. The results are shown in the table below:

|  |  |
| --- | --- |
| **Organelle** | **Number present** |
| mitochondria | 2 000 |
| vesicles | 7 000 |
| ribosomes | 16 000 |

1. What is the ratio of mitochondria to ribosomes in the cell?[1]
2. What percentage of the total number of organelles were mitochondria? [1]

7. If a microscope has an eye piece magnification of 10X and objective lens magnification of 40X, what is the total magnification? [1]

8. An object has a length of 50 um, how long **in mm** will it appear to be under 500X magnification? [1]

9. The field of view under a microscope is shown on the right. The diameter measures 3.0mm. What is the average length of a cell in micrometres, in the row marked by the back pointer? [1]

[TOTAL = 18 marks]