

6 Mitosis is part of the cell cycle.

(a) Give **two** roles of the cell cycle.

(2)

1 .....

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2 .....

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(b) For each of the statements about mitosis below, place a cross ☒ in the box that identifies the correct word or words.

(i) The following disappear during prophase in an animal cell

(1)

- ☐ **A** nucleus and centrioles
- ☐ **B** nucleus and nucleolus
- ☐ **C** nucleolus and mitochondria
- ☐ **D** nucleus and ribosomes

(ii) The following are formed during prophase in an animal cell

(1)

- ☐ **A** DNA
- ☐ **B** Golgi apparatus
- ☐ **C** mitochondria
- ☐ **D** spindle fibres



- (c) A student prepared a root tip squash to observe the stages in mitosis.  
Describe how the student could distinguish between a cell in metaphase and a cell in anaphase.

(3)

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**(Total for Question 6 = 7 marks)**



N 3 7 4 8 9 A 0 1 5 2 0