

20 Telomeres become shorter during each cell cycle of a specialised cell.

In which phase of the cell cycle do telomeres shorten?

- A** cytokinesis
- B** G_1
- C** S
- D** G_2

21 What are roles of adult stem cells in humans?

- 1 repair other cells by mitosis
- 2 divide to replace cells in tissues
- 3 differentiate into a new organism

- A** 1 and 3 **B** 1 only **C** 2 and 3 **D** 2 only

22 Which statements are correct for the mitotic cell cycle?

- 1 DNA is replicated semi-conservatively during mitosis.
- 2 DNA is never changed from one generation of cells to the next generation.
- 3 The daughter cells at the end of a mitotic cell division have the potential to produce the same enzymes as the parent cell.
- 4 The same quantity of DNA is distributed to the nuclei of two new cells at the end of a mitotic cell division.

- A** 1 and 2 **B** 1 and 4 **C** 2 and 3 **D** 3 and 4