

## SECTION A

**Answer ALL the questions in this section.**

**For questions 1–10, in Section A, select one answer from A to D and put a cross in the box ☐. If you change your mind, put a line through the box ☒ and then mark your new answer with a cross ☐.**

- 1** The ultimate fate of the universe is uncertain.

Which of the following would result in an open universe?

- ☐ **A** The average density of the universe is equal to the critical density of the universe.
- ☐ **B** The average density of the universe is less than the critical density of the universe.
- ☐ **C** The mass of the universe is equal to the critical mass of the universe.
- ☐ **D** The mass of the universe is greater than the critical mass of the universe.

**(Total for Question 1 = 1 mark)**