

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** A mass oscillates with simple harmonic motion about a fixed point O.

Which of the following statements about the motion of the mass is correct?

- ☐ **A** Its velocity is always towards O.
- ☐ **B** Its acceleration is always towards O.
- ☐ **C** Its acceleration is directly proportional to its velocity.
- ☐ **D** Its acceleration and its velocity are always in opposite directions.

(Total for Question 1 = 1 mark)