OCR
Oxford Cambridge and RSA

Wednesday 4 June 2025 – Afternoon

A Level Mathematics B (MEI)

H640/01 Pure Mathematics and Mechanics

Printed Answer Booklet

Time allowed: 2 hours

AB

You must have:
- Question Paper H640/01 (inside this document)
- a scientific or graphical calculator

Please write clearly in black ink. **Do not write in the barcodes.**

Centre number | | | | | | Candidate number | | | | |

First name(s) _____

Last name _____

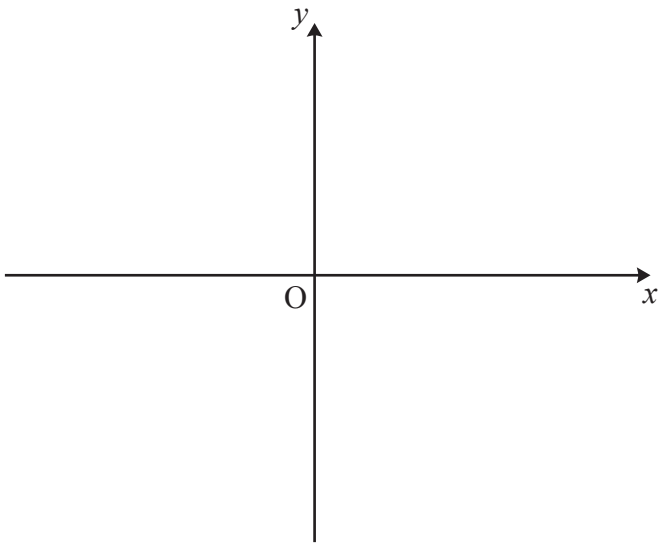
INSTRUCTIONS
- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided in the **Printed Answer Booklet**. If you need extra space use the lined page at the end of the Printed Answer Booklet. The question numbers must be clearly shown.
- Answer **all** the questions.
- Where appropriate, your answer should be supported with working. Marks might be given for using a correct method, even if your answer is wrong.
- Give your final answers to a degree of accuracy that is appropriate to the context.
- The acceleration due to gravity is denoted by $g\,\text{m}\,\text{s}^{-2}$. When a numerical value is needed use $g = 9.8$ unless a different value is specified in the question.

INFORMATION
- This document has **20** pages.

ADVICE
- Read each question carefully before you start your answer.

Section A (20 marks)

1(a)



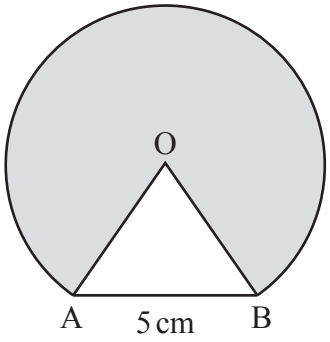
1(b)

2

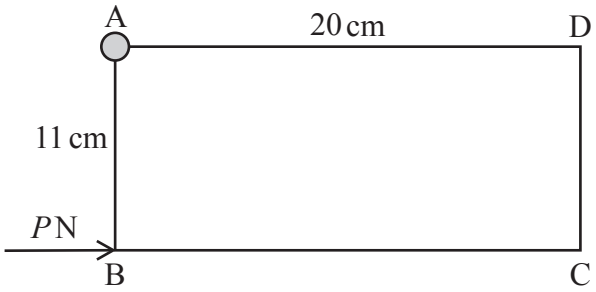
3(a)	
3(b)	
3(c)	

DO NOT WRITE IN THIS SPACE

4

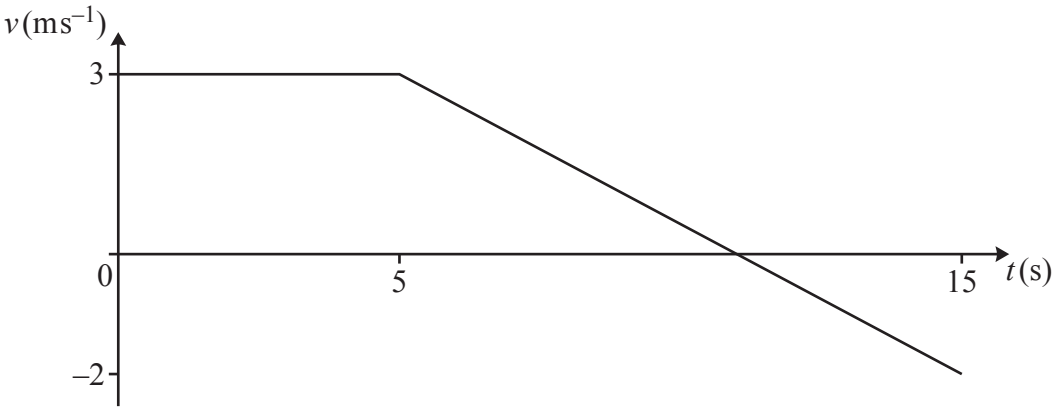


5



Section B (80 marks)

6(a)



6(b)

6(c)

D =

T =

7

8(a)

8(b)

9(a)

9(b)

9(c)

10(a)

10(b)

10(c)

10(d)

11(a)

11(b)

(answer space continued on next page)

11(b) **(continued)**

11(c)

12(a)	

DO NOT WRITE IN THIS SPACE

12(b)

12(c)

13(a)

13(b)

13(c)

13(d)

14(a)

14(b)

14(c)

EXTRA ANSWER SPACE

If you need extra space use this lined page. You must write the question numbers clearly in the margin.