

Tuesday 4 June 2024 – Afternoon

A Level Mathematics B (MEI)

H640/01 Pure Mathematics and Mechanics

Printed Answer Booklet

Time allowed: 2 hours

You must have:

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

AB



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

Centre number

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Candidate number

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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 pages 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 $g \text{ m s}^{-2}$. 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 (25 marks)

1	
2(a)	
2(b)	

3(a)	
3(b)	
4	
	$a =$
	$b =$

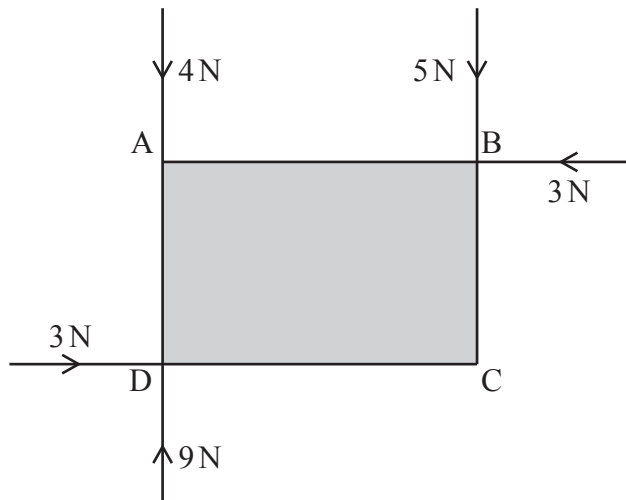
5(a)	
	5(b)

6

Section B (75 marks)

7(a)

7(b)



7(c)

[illegible]

9(a)	
9(b)	

10(a)	
	$a =$
$b =$	
10(b)	
10(c)	

10(d)		
		$P =$
		$k =$
10(e)		
10(f)		

11(a)**11(b)****11(c)**

12(a)	
12(b)	

13(a)

 $p =$
$$q =$$

13(b)	
13(c)	
14(a)	

14(b)	
14(c)	

15

(answer space continued on next page)

15	(continued)
16(a)	

[illegible]

EXTRA ANSWER SPACE

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

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