



Oxford Cambridge and RSA

Friday 7 June 2024 – Afternoon

A Level Further Mathematics B (MEI)

Y421/01 Mechanics Major

Printed Answer Booklet

Time allowed: 2 hours 15 minutes



You must have:

- Question Paper Y421/01 (inside this document)
- the Formulae Booklet for Further Mathematics B (MEI)
- a scientific or graphical calculator



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 **24** pages.

ADVICE

- Read each question carefully before you start your answer.

Section A (26 marks)

1(a)	
1(b)	
2(a)	

2(b)		
2(c)		
2(d)		
		$\alpha =$
		$\beta =$
	$\gamma =$	

[illegible]

[illegible]

6

Section B (94 marks)

5(a)	
5(b)	

6

[illegible]

7(b)

7(c)

8(b)	(continued)
8(c)	

9(a)	
9(b)	

9(c)

10

(answer space continued on next page)

[illegible]

11(a)	
11(b)	

11(c)	
11(d)	

12(a)	
12(b)	

12(c)	
12(d)	

13(a)	
	(answer space continued on next page)

[illegible]

13(b)	

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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