

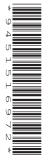
Wednesday 15 June 2022 – Afternoon

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						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 pages at the end of the Printed Answer Booklet. The guestion 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 gms^{-2} . When a numerical value is needed use q = 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.

1(a) 1(b)(i) 1(b)(ii)

Section A (29 marks)

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2	
	$\alpha =$
	$\beta =$

3(a)	
3(b)	

4(a)	
4(b)	
4(c)	

5(a)	
5(b)	

Section B (91 marks)

6(a)	
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6(b)	
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7(a)	
7(b)(i)	

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7(b)(ii)	
7(b)(iii)	

8 (a)	
8(b)	

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8(c)	
8(d)	

9(a)	

9(b)	

10(a)	
10(a)	

10(b)	
10(c)	
11(a)	

11(b)	

10()	
12(a)	

12(b)	
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12(c)	
12(0)	

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13(a)	
12(1)	
13(b)	

13(c)	

12(d)	
13(d)	

ADDITIONAL	ANSWER	SPACE
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If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).



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