



Oxford Cambridge and RSA

**Tuesday 19 October 2021 – 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)

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Last name

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**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 (34 marks)**

<b>1</b>	
<b>2</b>	

<b>3(a)</b>	
<b>3(b)</b>	
<b>4</b>	

<b>5</b>	

<b>6(a)</b>	
<b>6(b)</b>	
<b>6(c)</b>	
<b>6(d)</b>	
<b>6(e)</b>	

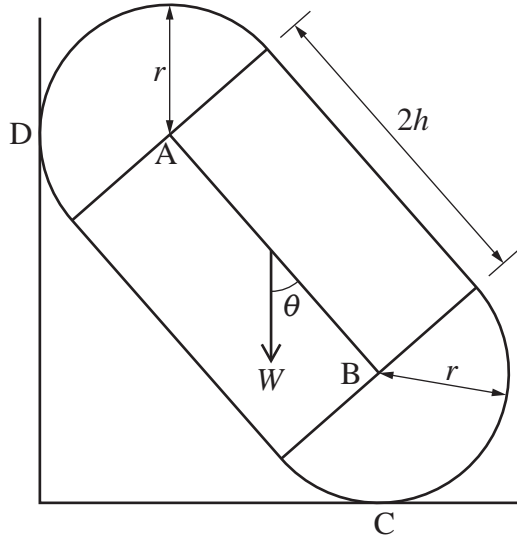
6

Section B (86 marks)

<b>7(a)</b>	
<b>7(b)</b>	



8(a)



8(b)








<b>9(b)</b>	

<b>9(c)</b>	









<b>11(c)(i)</b>	
<b>11(c)(ii)</b>	









