Oxford Cambridge and RSA

Monday 23 May 2022 – Afternoon

AS Level Further Mathematics B (MEI)

Y411/01 Mechanics a

Printed Answer Booklet

Time allowed: 1 hour 15 minutes

You must have:
- Question Paper Y411/01 (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 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 $g\,\mathrm{m\,s^{-2}}$. When a numerical value is needed use $g = 9.8$ unless a different value is specified in the question.

INFORMATION
- This document has **12** pages.

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

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1(a)

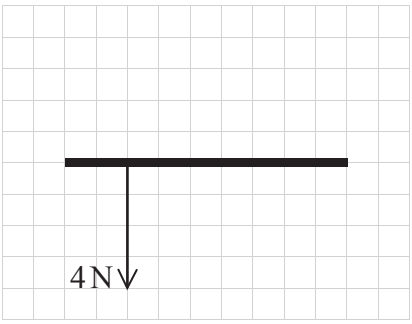

Fig. 1.1

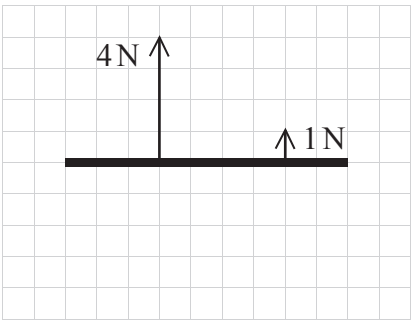

Fig. 1.2

1(b)(i)

1(b)(ii)

2(a)

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2(b)

2(c)

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

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3(d)	
4(a)	
4(b)	

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4(c)

4(d)

5(a)

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5(c)

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6(a)

6(b)

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6(c)

6(d)

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7(a)(i)	
7(a)(ii)	
7(b)	

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7(c)	
7(d)	

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ADDITIONAL ANSWER SPACE

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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