OCR
Oxford Cambridge and RSA

Tuesday 6 June 2023 – Afternoon

A Level Mathematics B (MEI)

H640/01 Pure Mathematics and Mechanics

Printed Answer Booklet

Time allowed: 2 hours

AB

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

* H 6 4 0 0 1 *

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 **20** pages.

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

Section A (23 marks)

1	
2	

3	
4(a)	
4(b)	

5(a)

5(b)

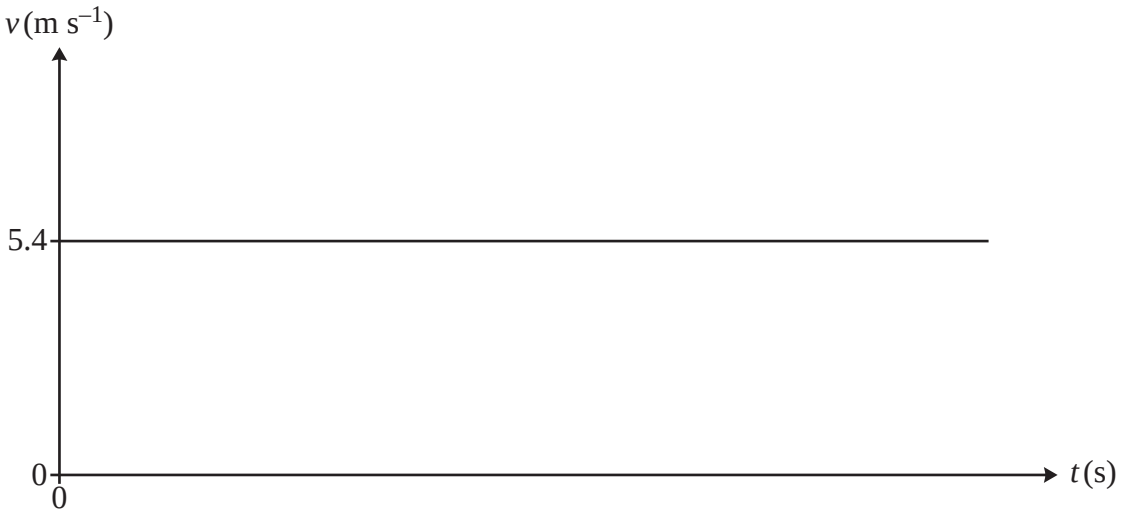
6(a)

6(b)

Section B (77 marks)

7

8(a)



8(b)

8(c)

8(d)

9(a)

9(b)

9(c)

10

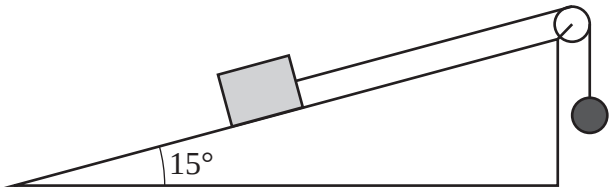
10(a)	
	$a =$
	$b =$
10(b)	
10(c)	

11(a)(i)	
11(a)(ii)	
11(b)(i)	
11(b)(ii)	

11(c)	
11(d)	

12(a)	
12(b)	
12(c)	
12(d)	

13(a)



13(b)

13(c)

(answer space continued on next page)

13(c)	(continued)

14(a)

14(b)

14(c)

15(a)

15(b)

(answer space continued on next page)

15(b)	**(continued)**

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).