OCR
Oxford Cambridge and RSA

Accredited

A Level Further Mathematics B (MEI)
Y421 Mechanics Major
Printed Answer Booklet

Date – Morning/Afternoon
Time allowed: 2 hours 15 minutes

OCR supplied materials:
- Printed Answer Booklet
- Formulae Further Mathematics B (MEI)

You must have:
- Printed Answer Booklet
- Formulae Further Mathematics B (MEI)
- Scientific or graphical calculator

First name	
Last name	
Centre number	**Candidate number**

SPECIMEN

INSTRUCTIONS
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Complete the boxes provided on the Printed Answer Booklet with your name, centre number and candidate number.
- Answer **all** the questions.
- **Write your answer to each question in the space provided in the Printed Answer Booklet.**
- Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.
- You are permitted to use a scientific or graphical calculator in this paper.
- Final answers should be given to a degree of accuracy appropriate to the context.
- The acceleration due to gravity is denoted by g m s^{-2}. Unless otherwise instructed, when a numerical value is needed, use $g = 9.8$.

INFORMATION
- You are advised that an answer may receive **no marks** unless you show sufficient detail of the working to indicate that a correct method is used. You should communicate your method with correct reasoning.
- The Printed Answer Booklet consists of **20** pages. The Question Paper consists of **12** pages.

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Section A (26 marks)

1

2

SPECIMEN

3 (i)

3 (ii)

SPECIMEN

4 (i)

4 (ii)

4 (iii)

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5 (i)

5 (ii)

SPECIMEN

Section B (94 marks)

6 (i)

6 (ii)

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6 (iii)	
7 (i)	

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7 (ii) (*A*)	
7 (ii) (*B*)	

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8 (i)

8 (ii) (*A*)

8 (ii) (*B*)

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8 (iii)

SPECIMEN

9 (i)

SPECIMEN

9 (ii)

9 (iii)

SPECIMEN

10 (i)	
10 (ii)	

SPECIMEN

10 (iii) (*A*)

10 (iii) (*B*)

10 (iv)

10 (v)

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11 (i)

SPECIMEN

11 (ii)	

SPECIMEN

11 (iii)

SPECIMEN

12 (i)	
12 (ii) (*A*) **&**	
12 (iii)	
	(answer space continued on next page)

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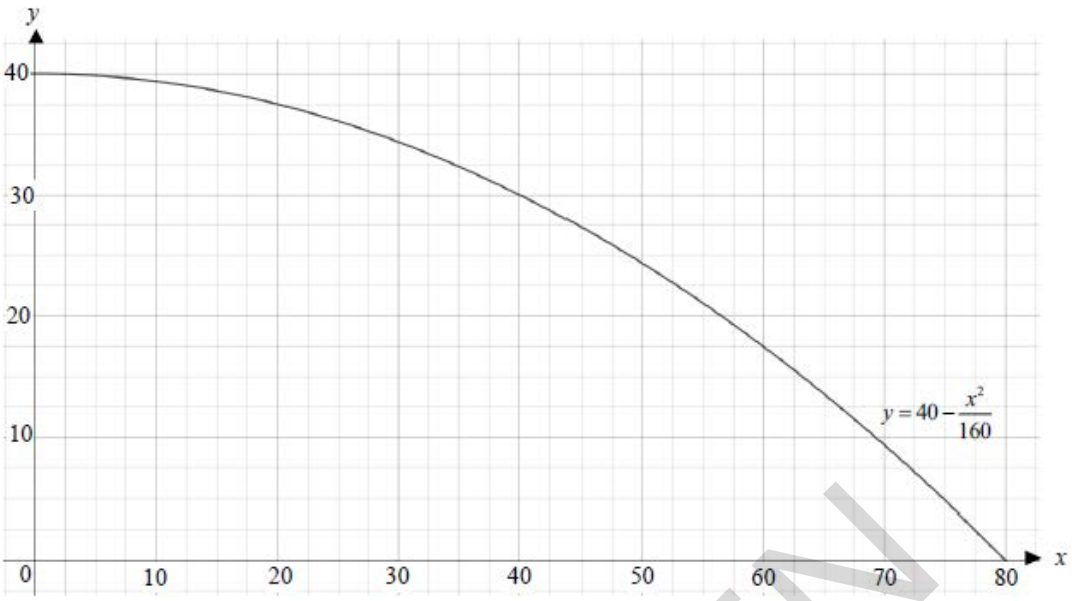
12 (ii) (*B*) **&**

12 (iii)

(continued)



A spare copy of the graph for question 12 (ii) and 12 (iii) can be found on page 20

12 (iv)

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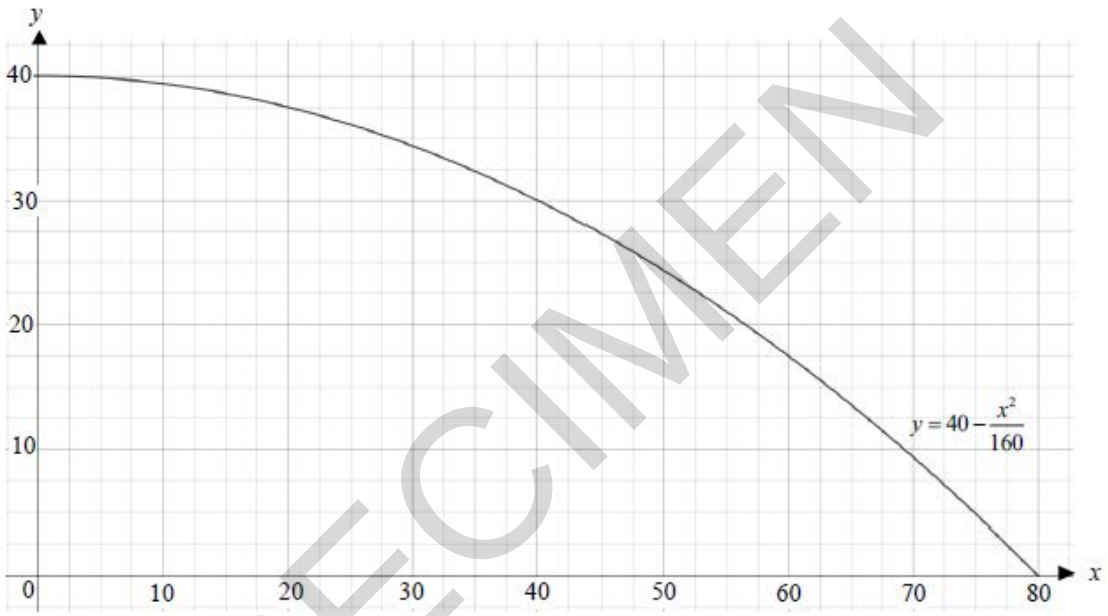
12 (v)	
	Spare copy of graph for question 12 (ii) and 12 (iii)



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