



Oxford Cambridge and RSA

Wednesday 13 October 2021 – Afternoon

A Level Mathematics B (MEI)

H640/02 Pure Mathematics and Statistics

Printed Answer Booklet

Time allowed: 2 hours



You must have:

- Question Paper H640/02 (inside this document)
- 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)

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.

INFORMATION

- This document has **20** pages.

ADVICE

- Read each question carefully before you start your answer.

Section A (23 marks)

1	
	$a =$
	$b =$
$c =$	
2(a)	
2(b)	
3	

<p>4</p>												
<p>5(a)</p>	<table border="1"><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr></table>											
<p>5(b)</p>	<table border="1"><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr></table>											

6(a)	
6(b)	

7(a)	
7(b)	

Section B (77 marks)

8	
	<i>a =</i>
	<i>b =</i>
9(a)	

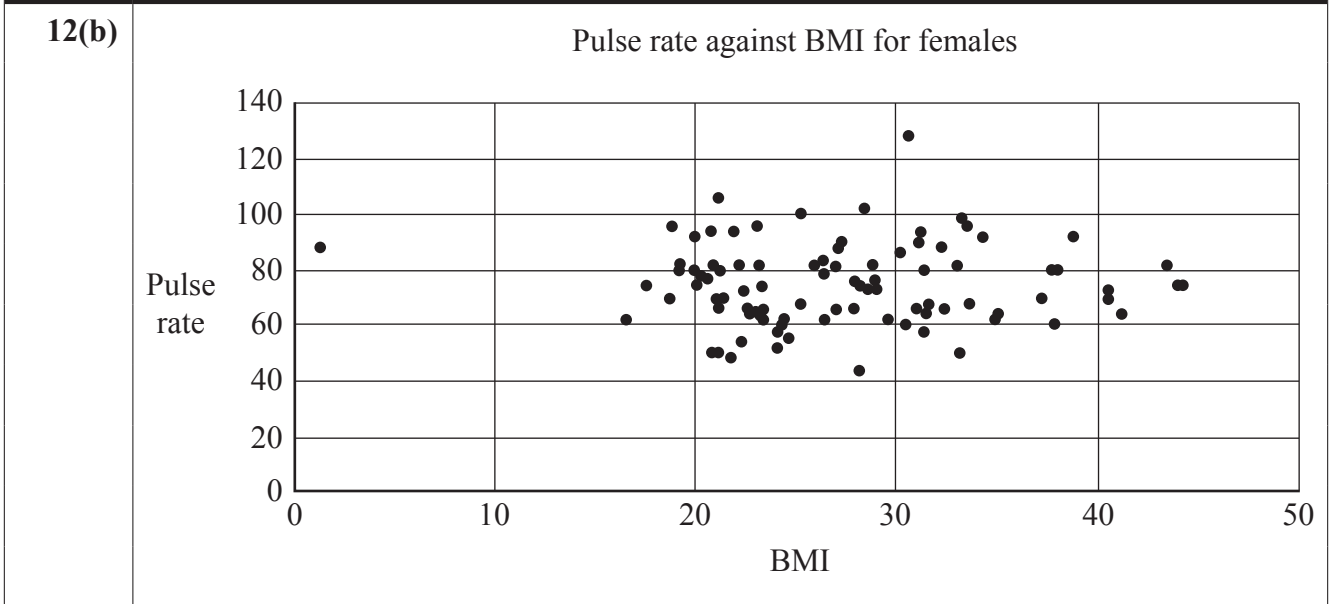
(answer space continued on next page)

9(a)	(continued)
9(b)	

9(d)	
10(a)	
10(b)	
10(c)	
10(d)	
the median =	
the interquartile range =	

10(e)	
10(f)	
11(a)	

12(a)	



12(c)	

12(d)	
12(e)	
12(f)	
13(a)	
	mean =
	standard deviation =
13(b)	
	$n =$
	$p =$

13(c)

Number of damaged decorations	0	1	2	3	4	5 or more
Observed number of boxes	19	35	28	13	5	0
Expected number of boxes						

13(d)

14(a)

14(b)

14(c)	
14(d)	
15(a)	

15(b)

15(c)

15(d)	

15(e)	

