



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	Candidate number	
First name(s)		
Last name		

INSTRUCTIONS

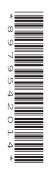
- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided in the Printed Answer Booklet. If you need extra space use the lined pages at the end of the Printed Answer Booklet. The question numbers must be clearly shown.
- · 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.

INFORMATION

This document has 20 pages.

ADVICE

· Read each question carefully before you start your answer.



2 Section A (23 marks)

1	
	a =
	b =
	c =
2(a)	
2(b)	
2(0)	
3	

4	
5(a)	
5(b)	

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4

6(a)	
6(b)	

7(a)	
7(b)	

6 Section B (77 marks)

8	
	a =
	b =
9(a)	
	(answer space continued on next page)

9(a)	(continued)
9(b)	

9(c)	

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

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

11(b)	
11(c)	
11(c)	

12(a)							
12(b)			F	Pulse rate against	BMI for female	es	
	140				•		
	120			•			
	100 Pulse 80			• • • •		•	
	Pulse 80 rate 60				**		
	40			•••	•		
	20						
	0	0	10	20	30	40	50
					MI		
12(c)							

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

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

14(a)	
14(4)	
14(1)	
14(b)	
14(0)	
14(0)	
14(0)	
14(0)	
14(0)	
14(0)	
14(0)	
14(0)	
14(0)	
14(0)	
14(0)	
14(0)	

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

15(b)	
15(c)	

15(d)	
15(-)	
15(e)	

16	

20

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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