

# Friday 17 June 2022 – Afternoon

## A Level Further Mathematics B (MEI)

**Y422/01** Statistics Major

Printed Answer Booklet

**Time allowed: 2 hours 15 minutes**

9  
6  
4  
5  
1  
9  
7  
6  
2  
0  
2  
\*

**You must have:**

- Question Paper Y422/01 (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

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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 **24** pages.

### ADVICE

- Read each question carefully before you start your answer.

**Section A (25 marks)**

1(a)	
1(b)	
1(c)	
1(d)	

2(a)	
2(b)	
2(c)	

3(a)	
	$a =$
	$b =$
3(b)	
	$E(Y) =$
	$\text{Var}(Y) =$

4(a)	
4(b)	

## **Section B (95 marks)**

5(c)	
5(d)	<p>25 °C =</p> <p>10 °C =</p>
5(e)	

6(a)

6(b)	
6(c)	
6(d)	
The mean of the sample =	
The size of the sample =	

7(a)	
7(b)	

7(c)

**DO NOT WRITE IN THIS SPACE**

8(a)	
8(b)	
8(c)	
<b>(answer space continued on next page)</b>	



<b>9(a)</b>	
<hr/>	
<b>9(b)</b>	
	$E(X) =$
$\text{Var}(X) =$	
<hr/>	
<b>9(c)</b>	

9(d)	
9(e)	

10(a)

Expected frequency		Dietary fat intake		
		Low	Medium	High
Cholesterol level	Normal			9.0667
	High			7.9333

10(b)

10(c)

(answer space continued on next page)







12(a)

12(b)

## 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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