

# Friday 17 June 2022 – Afternoon

## A Level Further Mathematics B (MEI)

## Y422/01 Statistics Major

## Printed Answer Booklet

#### Time allowed: 2 hours 15 minutes



### 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						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 guestion 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)	

<b>3(a)</b>	
	<i>a</i> =
	b =
3(b)	
I	
	E(Y) =

4(a)	
-	
-	
-	
_	
4(b)	
ע)ד	
-	
_	
-	
-	
-	
-	
-	
-	
-	
-	

Section B (95 marks)

5(a)										
5(1-)										
5(b)	Temperature	20	22	24	26	28	30	32	34	36
	Residual tyre pressure	-0.003	-0.002	0.004	-0.010		0.011	-0.003	0.001	

5(c)	
5(d)	
	25 °C =
	10°C =
5(e)	
5(0)	

6(a)	

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

7(a)	
7(b)	
7(0)	

7(c)		

## DO NOT WRITE IN THIS SPACE

<b>8(a)</b>	
8(b)	
0()	
8(c)	
	(answer space continued on next page)

8(c)	(continued)
8(d)	

9(a)	
9(b)	
	$\mathrm{E}(X) =$
	$\operatorname{Var}(X) =$
9(c)	

9(d)		
9(e)	9(d)	
9(c)		
9(c)		
9(e)		
9(c)		
9(e)		
9(c)		
9(e)		
9(c)		
9(e)		
9(e)		
	9(e)	

<b>0(a)</b>					]	
	Expected frequency		D	ietary fat inta	ıke	
	Expected If	equency	Low	Medium	High	
	Cholesterol	Normal			9.0667	
	level	High			7.9333	
0(b)						
0(c)						
0(c)						
0(c)						
0(c)						
0(c)						

10(c)	(continued)
10(d)	
10(u)	

11(a)	
11(b)	
	(answer space continued on next page)

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

<b>12(a)</b>	

12(b)	

ADDITIONAL ANSWER SPACE
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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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