

# 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 clea	arly in	black	ink. I	Do no	ot writ	e 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 24 pages.

#### **ADVICE**

• Read each question carefully before you start your answer.

Turn over

Section A (25 marks)

1(a)	
<b>1(b)</b>	
1(c)	
1(0)	
1(d)	

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

1	
4	

<b>3</b> (a)	
	a =
	<i>b</i> =
<b>3(b)</b>	
- ()	
	E(Y) =
	$\operatorname{Var}(Y) =$

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<b>4</b> (a)	
<b>4(b)</b>	

Section B (95 marks)

5(a)										
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(1)	
5(u)	
	25 °C =
	10°C =
5(e)	

8

(a)	

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

7(a)	
7(b)	

<b>7(c)</b>	

### DO NOT WRITE IN THIS SPACE

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

<b>8</b> (c)	(continued)
<b>8</b> (d)	

9(a)	
9(b)	
	F(X) =
	U(X) = Var(X) =
9(c)	
)(0)	

9(d)	
9(e)	

			D	istom fot inte		
	Expected frequency		xpected frequency Low Medium		High	
	Cholostorol	Normal			9.0667	
	level	High			7.9333	
10(b)						
10(c)						
10(c)						
10(c)						
10(c)						
10(c)						
10(c)						

<b>10(c)</b>	(continued)
<b>10(d)</b>	

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

<b>11(b)</b>	(continued)
11(c)	

12(a)	

12(b)	
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## 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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