

Paper Reference 9FM0/4D
Pearson Edexcel Level 3 GCE

Total Marks

Further Mathematics
Advanced
PAPER 4D: Decision Mathematics 2

Monday 26 June 2023 – Afternoon

Time: 1 hour 30 minutes

Answer Booklet

In the boxes below, write your name, centre number and candidate number.

Surname					
Other names					
Centre Number					
Candidate Number					

Read the instructions on the next page.

INSTRUCTIONS

Do not return the Question Paper with the Answer Booklet.

**THIS ANSWER BOOKLET *MUST* BE RETURNED
WITH THE DIAGRAM BOOKLET AT THE END OF
THE EXAMINATION.**

1. Refer to Diagram 1 in the Diagram Booklet.

Answer lines continue on the next four pages.

1. continued.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Turn over

1. continued.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Turn over

1. continued.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Turn over

1. continued.

(Total for Question 1 is 7 marks)

2. **Answer space and lines continue on the next three pages.**

2. continued.

Turn over

2. continued.

(continued on the next page)

Turn over

2. continued.

Use the space below and on the next two pages if you need to redraw your decision tree.

2. continued.

Turn over

2. continued.

(Total for Question 2 is 5 marks)

3. Refer to Diagram 2 in the Diagram Booklet.

Answer lines continue on the next page.

(a)

[illegible]

Turn over

3. (a) continued.

(continued on the next page)

3. (b) You may not need to use all of these tables.

Answer lines and tables continue on the next seven pages.

	Q	R	S
A			
B			
C			
D			

3. (b) continued.

	Q	R	S
A			
B			
C			
D			

(continued on the next page)

Turn over

3. (b) continued.

	Q	R	S
A			
B			
C			
D			

(continued on the next page)

Turn over

3. (b) continued.

	Q	R	S
A			
B			
C			
D			

(continued on the next page)

Turn over

3. (b) continued.

	Q	R	S
A			
B			
C			
D			

(continued on the next page)

Turn over

3. (b) continued.

	Q	R	S
A			
B			
C			
D			

(continued on the next page)

Turn over

3. (b) continued.

	Q	R	S
A			
B			
C			
D			

(continued on the next page)

Turn over

3. (b) continued.

	Q	R	S
A			
B			
C			
D			

(Total for Question 3 is 9 marks)

4. Refer to Diagram 3 in the Diagram Booklet.
You may not need to use all of these
tables.

Answer lines and tables continue on the next ten
pages.

	1	2	3	4
A				
B				
C				
D				

4. continued.

	1	2	3	4
A				
B				
C				
D				

4. continued.

	1	2	3	4
A				
B				
C				
D				

4. continued.

	1	2	3	4
A				
B				
C				
D				

4. continued.

	1	2	3	4
A				
B				
C				
D				

4. continued.

	1	2	3	4
A				
B				
C				
D				

4. continued.

	1	2	3	4
A				
B				
C				
D				

4. continued.

	1	2	3	4
A				
B				
C				
D				

4. continued.

	1	2	3	4
A				
B				
C				
D				

4. continued.

	1	2	3	4
A				
B				
C				
D				

4. continued.

(Total for Question 4 is 8 marks)

5. Answer lines continue on the next five pages.

[illegible]

Turn over

5. continued.

[illegible]

Turn over

5. continued.

[illegible]

Turn over

5. continued.

[illegible]

Turn over

5. continued.

[illegible]

Turn over

5. continued.

This image shows a blank sheet of white paper with horizontal black ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Total for Question 5 is 8 marks)

Turn over

- 6. Refer to Diagram 4, Diagram 5, Diagram 6 and Diagram 7 in the Diagram Booklet.**

Answer lines continue on the next page.

[illegible]

6. continued.

(Total for Question 6 is 13 marks)

7. Answer lines continue on the next five pages.

Turn over

7. continued.

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Turn over

7. continued.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Turn over

7. continued.

[illegible]

Turn over

7. continued.

[illegible]

Turn over

7. continued.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(Total for Question 7 is 8 marks)

Turn over

8. Refer to the Diagram 8 in the Diagram Booklet.
Answer lines continue on the next thirteen pages.

8. continued.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Turn over

8. continued.

[illegible]

Turn over

8. continued.

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Turn over

8. continued.

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Turn over

8. continued.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Turn over

8. continued.

[illegible]

Turn over

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8. continued.

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Turn over

8. continued.

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Turn over

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Turn over

8. continued.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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Turn over

8. continued.

b.v.									Value
P									

(continued on the next page)

8. continued.

Spare copy

b.v.									Value
P									

(Total for Question 8 is 17 marks)

TOTAL FOR PAPER IS 75 MARKS

END OF PAPER