

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

Total Marks

Further Mathematics
Advanced
Paper 4D: Decision Mathematics 2

Tuesday 25 June 2019 – Morning

Answer Book

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

Surname					
Other names					
Centre Number					
Candidate Number					

X61186A

INSTRUCTIONS

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

1. Refer to Diagram 1 and Diagram 2 in the Diagram Book and to the tables on the following eight pages.

You may not need to use all of these tables.

	P	Q	R	S
A				
B				
C				
D				

1. continued.

	P	Q	R	S
A				
B				
C				
D				

Turn over

1. continued.

	P	Q	R	S
A				
B				
C				
D				

1. continued.

	P	Q	R	S
A				
B				
C				
D				

1. continued.

	P	Q	R	S
A				
B				
C				
D				

Turn over

1. continued.

	P	Q	R	S
A				
B				
C				
D				

Turn over

1. continued.

	P	Q	R	S
A				
B				
C				
D				

Turn over

1. continued.

	P	Q	R	S
A				
B				
C				
D				

Turn over

1. continued.

	P	Q	R	S
A				
B				
C				
D				

(Total for Question 1 is 10 marks)

Turn over

2. Refer to Diagram 3 in the Diagram Book and to the tables on the following seven pages.

You may not need to use all of these tables.

	1	2	3	4
T				
H				
J				
M				

2. continued.

	1	2	3	4
T				
H				
J				
M				

2. continued.

	1	2	3	4
T				
H				
J				
M				

Turn over

2. continued.

	1	2	3	4
T				
H				
J				
M				

Turn over

2. continued.

	1	2	3	4
T				
H				
J				
M				

Turn over

2. continued.

	1	2	3	4
T				
H				
J				
M				

Turn over

2. continued.

	1	2	3	4
T				
H				
J				
M				

Turn over

2. continued.

	1	2	3	4
T				
H				
J				
M				

(Total for Question 2 is 7 marks)

Turn over

3. Refer to Diagram 4 in the Diagram Book.

(a)

(continued on the next page)

3. (b) This table continues on the next five pages. Answer lines are on page 27

Stage	State	Action	Destination	Value

3. (b) continued.

Stage	State	Action	Destination	Value

3. (b) continued.

Stage	State	Action	Destination	Value

3. (b) continued.

Stage	State	Action	Destination	Value

3. (b) continued.

Stage	State	Action	Destination	Value

3. (b) continued.

Stage	State	Action	Destination	Value

(continued on the next page)

3. (b) continued.

[illegible]

Turn over

3. (b) continued.

(Total for Question 3 is 13 marks)

- 4. Refer to Diagram 5 in the Diagram Book and to the tables on pages 31 and 32**

Answer lines and tables continue on the next twelve pages.

[illegible]

4. continued.

4. continued.

[illegible]

Turn over

4. continued.

[illegible]

Turn over

4. continued.

Only use the tableau below if you need to correct your initial tableau.

[illegible]

Turn over

4. continued.

[illegible]

Turn over

4. continued.

[illegible]

Turn over

4. continued.

4. continued.

[illegible]

Turn over

4. continued.

[illegible]

Turn over

4. continued.

Turn over

4. continued.

Turn over

4. continued.

(Total for Question 4 is 14 marks)

5. Answer lines continue on the next eleven 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.

[illegible]

Turn over

5. continued.

[illegible]

Turn over

5. continued.

[illegible]

Turn over

5. continued.

5. continued.

[illegible]

Turn over

5. continued.

[illegible]

Turn over

5. continued.

(Total for Question 5 is 11 marks)

6. Refer to Diagram 6, Diagram 7 and Diagram 8 in the Diagram Book.

Answer lines continue on the next three pages.

(a) (i) Capacity of cut $C_1 =$

(ii) Capacity of cut $C_2 =$

6. continued.

[illegible]

Turn over

6. continued.

[illegible]

Turn over

6. 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 6 is 8 marks)

7. Answer lines are on the next eight pages.

7. continued.

[illegible]

Turn over

7. continued.

[illegible]

Turn over

7. continued.

[illegible]

Turn over

7. continued.

[illegible]

Turn over

7. continued.

This image shows a single sheet of white paper with horizontal blue 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.

(Total for Question 7 is 12 marks)

TOTAL FOR PAPER IS 75 MARKS

END OF PAPER
