

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

Total Marks

Further Mathematics

Advanced

PAPER 3D: Decision Mathematics 1

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.

V72094A

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.**

Turn over

3

1. 4·3 6·1 5·1 4·7 2·5 5·9
3·4 1·7 2·1 0·4 1·3

Answer lines continue on the next
four pages.

Turn over

1. continued.

4·3 6·1 5·1 4·7 2·5 5·9

3·4 1·7 2·1 0·4 1·3

Turn over

1. continued.

4·3 6·1 5·1 4·7 2·5 5·9

3·4 1·7 2·1 0·4 1·3

1. continued.

4·3 6·1 5·1 4·7 2·5 5·9

3·4 1·7 2·1 0·4 1·3

Turn over

1. continued.

4·3 6·1 5·1 4·7 2·5 5·9

3·4 1·7 2·1 0·4 1·3

(Total for Question 1 is 5 marks)

Turn over

2. Refer to Diagram 1 and Diagram 2 in the Diagram Booklet.

Answer lines continue on the next eight pages.

Turn over

2. continued.

Turn over

2. continued.

Turn over

2. continued.

Turn over

2. continued.

Turn over

2. continued.

Turn over

2. continued.

Turn over

2. continued.

Turn over

2. continued.

(Total for Question 2 is 13 marks)

Turn over

3. Refer to Diagram 3, Diagram 4, Diagram 5 and Diagram 6 in the Diagram Booklet.

Answer lines and tables continue on the next fourteen pages.

(b) 3rd iteration

	A	B	C	D	E	F
A	—					
B		—				
C			—			
D				—		
E					—	
F						—

(continued on the next page)

Turn over

3. (b) continued.

Spare copy for 3rd iteration

	A	B	C	D	E	F
A	—					
B		—				
C			—			
D				—		
E					—	
F						—

(continued on the next page)

Turn over

3. (b) continued.

4th iteration

	A	B	C	D	E	F
A	—					
B		—				
C			—			
D				—		
E					—	
F						—

(continued on the next page)

3. (b) continued.**Spare copy for 4th iteration**

	A	B	C	D	E	F
A	—					
B		—				
C			—			
D				—		
E					—	
F						—

(continued on the next page)**Turn over**

3. continued.

Turn over

3. continued.

Turn over

3. continued.

Turn over

3. continued.

Turn over

3. continued.

Turn over

3. continued.

Turn over

3. continued.

Turn over

3. continued.

Turn over

3. continued.

Turn over

3. continued.

Turn over

3. continued.

(Total for Question 3 is 10 marks)

Turn over

**4. Refer to the Diagram 7 in the
Diagram Booklet.**

**Answer lines continue on the next
seven pages.**

4. continued.

Turn over

4. continued.

Turn over

4. continued.

Turn over

4. continued.

Turn over

4. continued.

Turn over

4. continued.

Turn over

4. continued.

(Total for Question 4 is 6 marks)

Turn over

**5. Refer to Diagram 8, Diagram 9,
Diagram 10, Diagram 11, Diagram 12
and Diagram 13 in the
Diagram Booklet.**

(b)

(continued on the next page)

5. continued.

(c) (ii)

(d)

(Total for Question 5 is 14 marks)

Turn over

6. You may not need to use all the rows in the table below.

It may not be necessary to complete all the boxes in each row.

The table below continues on the next page.

n	a	b	c

Turn over

6. continued.

n	a	b	c

Output: _____

(continued on the next page)

Turn over

6. continued.

You may not need to use all the rows in the table below.

It may not be necessary to complete all the boxes in each row.

The table below continues on the next page.

n	a	b	c

Turn over

6. continued.

n	a	b	c

Output: _____

(continued on the next page)

Turn over

6. continued.

**Refer to Diagram 14 in the
Diagram Booklet.**

17	21	24	14	23
13	15	19	28	20

**Answer lines continue on the next
fifteen pages.**

Turn over

6. continued.

17	21	24	14	23
13	15	19	28	20

6. continued.

17	21	24	14	23
13	15	19	28	20

6. continued.

17	21	24	14	23
13	15	19	28	20

50

6. continued.

17	21	24	14	23
13	15	19	28	20

Turn over

51

6. continued.

17	21	24	14	23
13	15	19	28	20

Turn over

6. continued.

17	21	24	14	23
13	15	19	28	20

6. continued.

17	21	24	14	23
13	15	19	28	20

54

6. continued.

17	21	24	14	23
13	15	19	28	20

Turn over

55

6. continued.

17	21	24	14	23
13	15	19	28	20

Turn over

56

6. continued.

17 21 24 14 23

13 15 19 28 20

Turn over

6. continued.

17	21	24	14	23
13	15	19	28	20

58

6. continued.

17	21	24	14	23
13	15	19	28	20

Turn over

6. continued.

17	21	24	14	23
13	15	19	28	20

60

6. continued.

17	21	24	14	23
13	15	19	28	20

Turn over

61

6. continued.

17	21	24	14	23
13	15	19	28	20

(Total for Question 6 is 12 marks)

**7. Refer to Diagram 15 and Diagram 16
in the Diagram Booklet.**

**Answer lines and tables continue on
the next fourteen pages.**

Turn over

7. continued.

Turn over

7. continued.

Turn over

7. continued.

b.v.	x	y					Value
P							

(continued on the next page)

7. continued.

b.v.	x	y					Value
P							

(continued on the next page)

7. continued.

(b)

(continued on the next page)

Turn over

7. continued.

b.v.	x	y	s ₁	s ₂	s ₃	s ₄	Value	Row Ops
P								

(continued on the next page)

Turn over

7. continued.

b.v.	x	y	s ₁	s ₂	s ₃	s ₄	Value	Row Ops
P								

(continued on the next page)

7. continued.

Spare copy

b.v.	x	y	s ₁	s ₂	s ₃	s ₄	Value	Row Ops
P								

(continued on the next page)

Turn over

7. continued.

Spare copy

b.v.	x	y	s ₁	s ₂	s ₃	s ₄	Value	Row Ops
P								

(continued on the next page)

Turn over

7. continued.

Turn over

7. continued.

Turn over

7. continued.

Turn over

7. continued.

Turn over

7. continued.

(Total for Question 7 is 15 marks)

TOTAL FOR PAPER IS 75 MARKS

END OF PAPER
