

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Centre Number

Candidate Number

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Pearson Edexcel Level 3 GCE

Friday 21 June 2024

Afternoon (Time: 1 hour 30 minutes)

**Paper
reference**

9FM0/3D

Further Mathematics

Advanced

PAPER 3D: Decision Mathematics 1

Answer Book

Do not return the question paper with the answer book.

Total Marks

Turn over ►

P75688A

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Pearson

1.

17 8 16 12 24 19 23 11 20 13 4

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

Question 1 continued

Lined area for writing the answer to Question 1.

(Total for Question 1 is 7 marks)



2.

	A	B	C	D	E	F	G	H	J
A	–	50	59	26	50	40	87	63	59
B	50	–	28	61	79	63	45	64	48
C	59	28	–	33	57	35	70	36	45
D	26	61	33	–	24	64	71	37	33
E	50	79	57	24	–	40	64	30	31
F	40	63	35	64	40	–	47	70	71
G	87	45	70	71	64	47	–	34	67
H	63	64	36	37	30	70	34	–	33
J	59	48	45	33	31	71	67	33	–

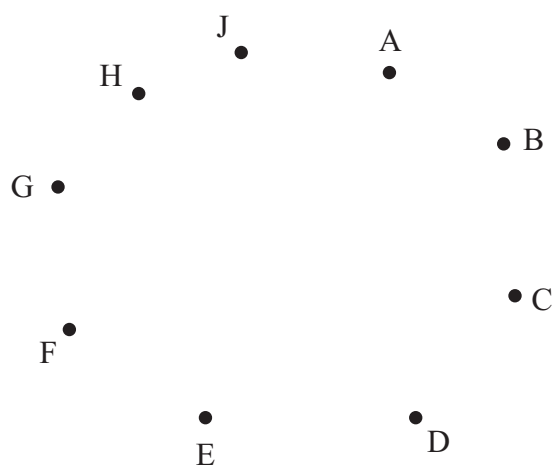


Diagram 1



DO NOT WRITE IN THIS AREA

Question 2 continued

	A	B	C	D	E	F	G	H	J
A	–	50	59	26	50	40	87	63	59
B	50	–	28	61	79	63	45	64	48
C	59	28	–	33	57	35	70	36	45
D	26	61	33	–	24	64	71	37	33
E	50	79	57	24	–	40	64	30	31
F	40	63	35	64	40	–	47	70	71
G	87	45	70	71	64	47	–	34	67
H	63	64	36	37	30	70	34	–	33
J	59	48	45	33	31	71	67	33	–

Handwriting practice lines consisting of 20 horizontal lines.

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

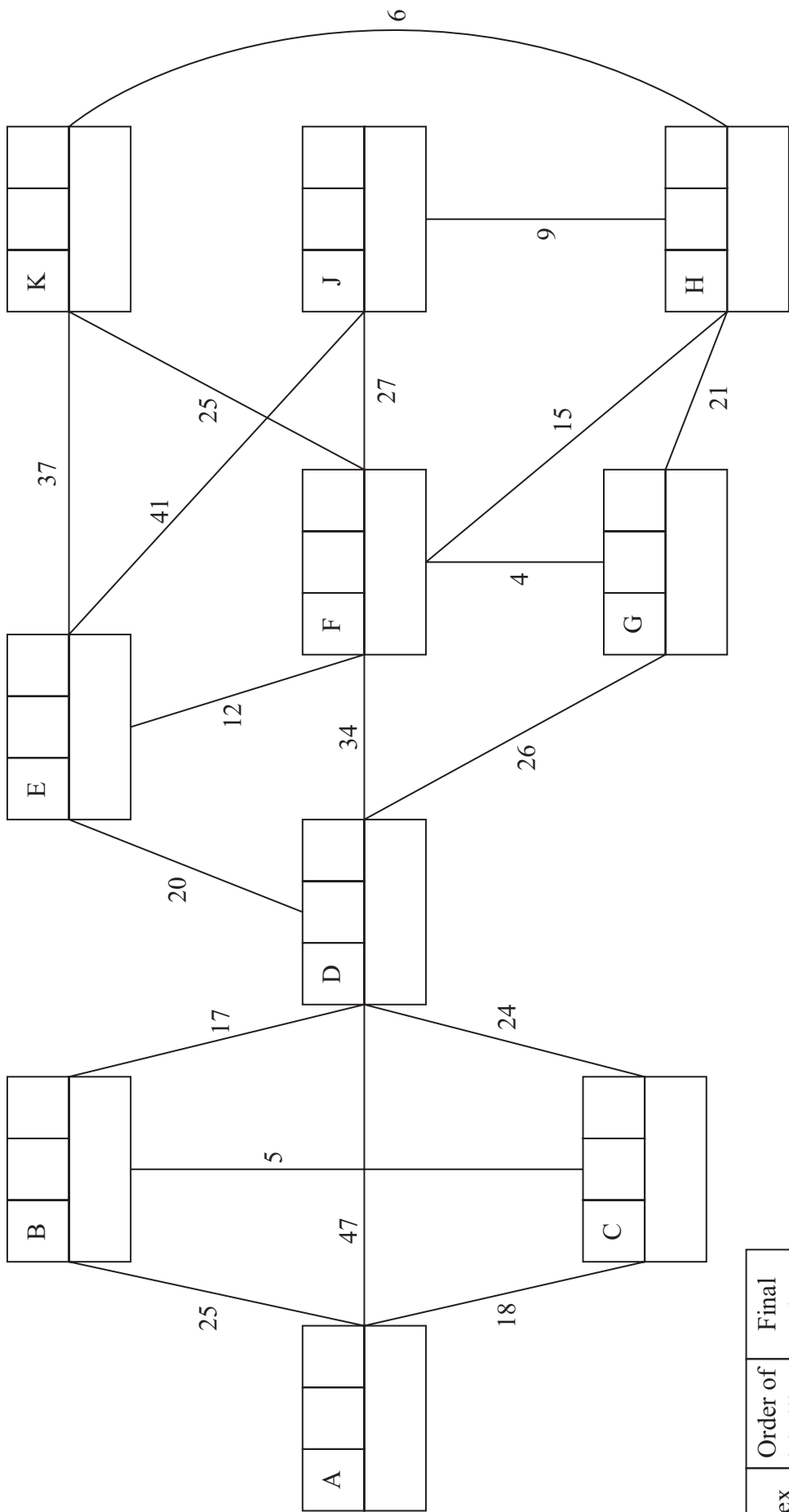
DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA





3.



Key:

Vertex	Order of labelling	Final value
Working value		

Shortest path from A to J: _____

DO NOT WRITE IN THIS AREA

Question 3 continued

Lined area for writing the answer to Question 3.



Question 3 continued

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Total for Question 3 is 13 marks)



DO NOT WRITE IN THIS AREA



Question 4 continued

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

Question 4 continued

Handwriting practice area with 20 horizontal lines.

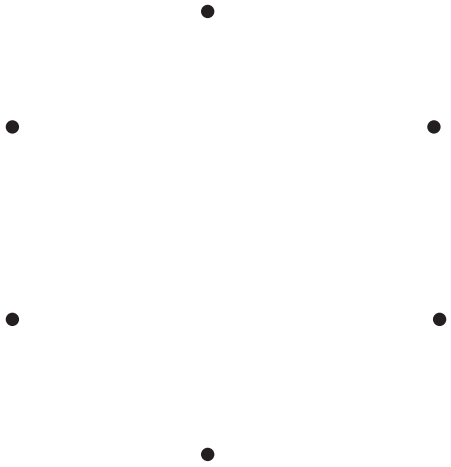


Diagram 1

(Total for Question 4 is 8 marks)

5.

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

6.



DO NOT WRITE IN THIS AREA

Question 6 continued

Lined area for writing answers.

(Total for Question 6 is 11 marks)



7.

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



Question 7 continued

b.v.	x	y	z	s_1	s_2	s_3	Value
s_1	0	$-\frac{1}{2}$	$\frac{3}{2}$	1	$-\frac{1}{2}$	0	30
x	1	$\frac{1}{4}$	$-\frac{1}{4}$	0	$\frac{1}{4}$	0	10
s_3	0	1	1	0	0	1	26
P	0	$-\frac{1}{4}$	$-\frac{11}{4}$	0	$\frac{3}{4}$	0	30

b.v.	x	y	z	s_1	s_2	s_3	Value	Row Ops
P								



Question 7 continued

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Total for Question 7 is 14 marks)

TOTAL FOR PAPER IS 75 MARKS

