OCR
Oxford Cambridge and RSA

Friday 24 May 2024 – Afternoon

AS Level Further Mathematics A

Y534/01 Discrete Mathematics

Printed Answer Booklet

Time allowed: 1 hour 15 minutes

AB

You must have:
- Question Paper Y534/01 (inside this document)
- the Formulae Booklet for AS Level Further Mathematics A
- a scientific or graphical calculator

Please write clearly in black ink. **Do not write 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 non-exact numerical answers correct to **3** significant figures unless a different degree of accuracy is specified in the question.
- The acceleration due to gravity is denoted by $g\,\text{m}\,\text{s}^{-2}$. When a numerical value is needed use $g = 9.8$ unless a different value is specified in the question.

INFORMATION
- The total mark for this paper is **60**.
- The marks for each question are shown in brackets **[ ]**.
- This document has **12** pages.

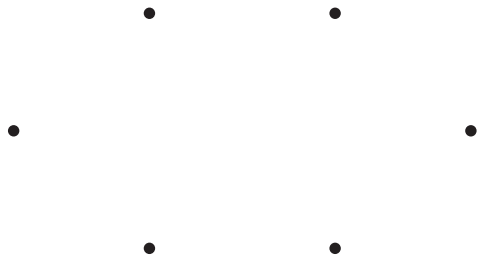
ADVICE
- Read each question carefully before you start your answer.

BLANK PAGE

DO NOT WRITE ON THIS PAGE

1(a)

1(b)



1(c)

1(d)

1(e)

2(a)

Pay-off for player 1

Player 1 \ Player 2	C	D	E	H	I
A	4	1	3	2	2
B	0	2	1	2	1
F	0	1	1	2	3
G	2	0	3	3	3
J	1	2	3	0	2

Play-safe strategy for player 1 is

2(b)

Pay-off for player 2

Player 1 \ Player 2	C	D	E	H	I
A	2	2	0	1	1
B	3	1	2	1	2
F	3	2	2	1	0
G	1	3	0	0	0
J	2	1	0	3	1

2(c)

3(a)

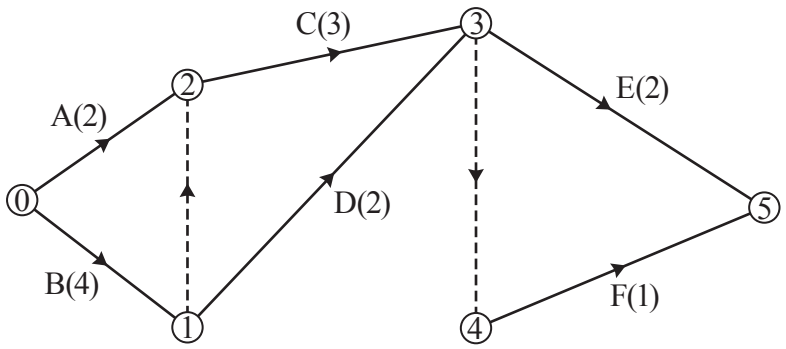
3(b)

3(c)

4(a)

4(b)

4(c)



Minimum project completion time =

Activity	A	B	C	D	E	F
Float						

4(d)

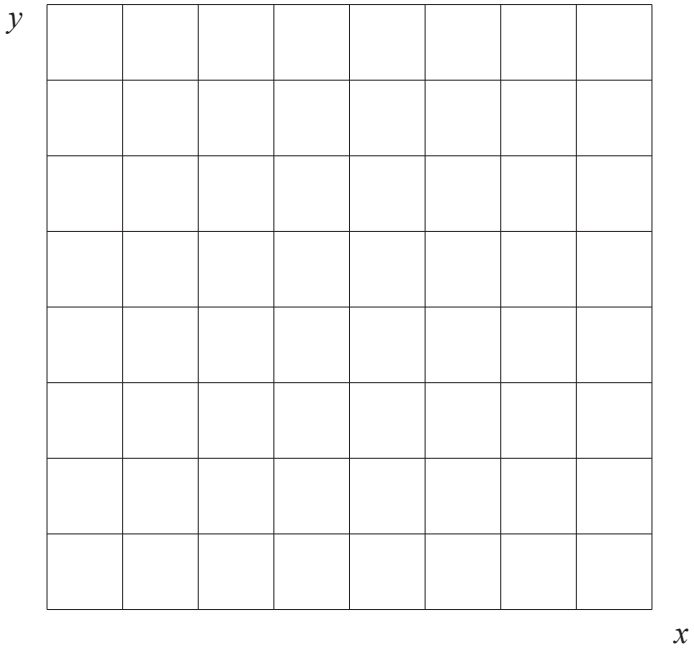
4(e)

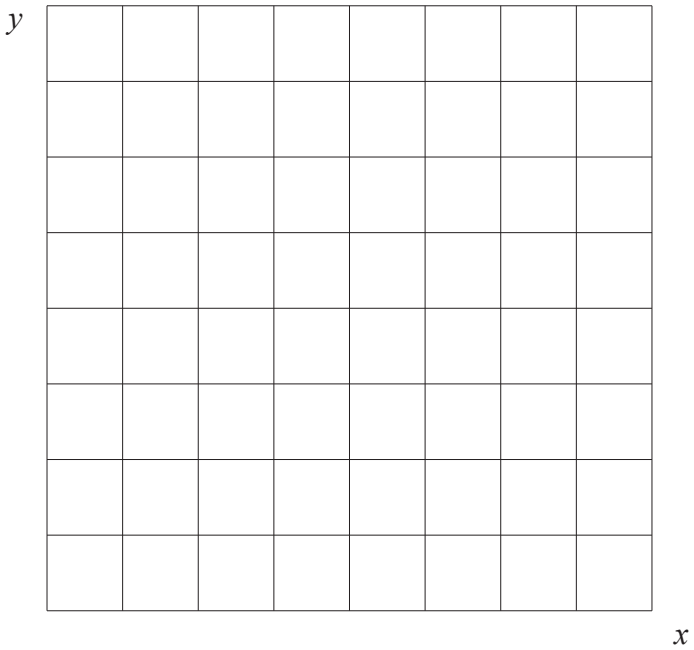
5(a)	
5(b)	
5(c)	
5(d)	

6(a)

6(b)

Grids for working





7(a)	8 5 4 7 3 3
	Bin 1:
	Bin 2:
7(b)	
7(c)	8 5 4 7 3 3
	Bin 1:
	Bin 2:
	Bin
	Bin
7(d)	
7(e)	
7(f)	
7(g)	

EXTRA ANSWER SPACE

If you need extra space use these lined pages. You must write the question numbers clearly in the margin.