



Oxford Cambridge and RSA

Tuesday 3 June 2025 – Afternoon

AS Level Further Mathematics A

Y534/01 Discrete Mathematics

Printed Answer Booklet

Time allowed: 1 hour 15 minutes



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 $g\text{ m s}^{-2}$. 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 **16** pages.

ADVICE

- Read each question carefully before you start your answer.

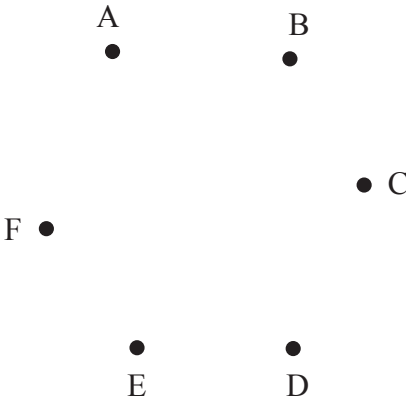
1(a)	
1(b)	
1(c)	

2(a)	
2(b)(i)	
2(b)(ii)	

3(a)

Minimum spanning tree

	A	B	C	D	E	F
A	–	5	3	5	8	10
B	5	–	6	2	7	5
C	3	6	–	1	10	8
D	5	2	1	–	9	4
E	8	7	10	9	–	3
F	10	5	8	4	3	–



Arcs in order:

Total weight:

3(b)

3(c)

Path:

Length:

km

4(a)**4(b)****4(c)**

	X	Y	Z
A	-2	1	0
B	2	0	1
C	0	-2	0

Play-safe strategies:

4(d)

4(e)	
4(f)	
	
Optimal strategy:	

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

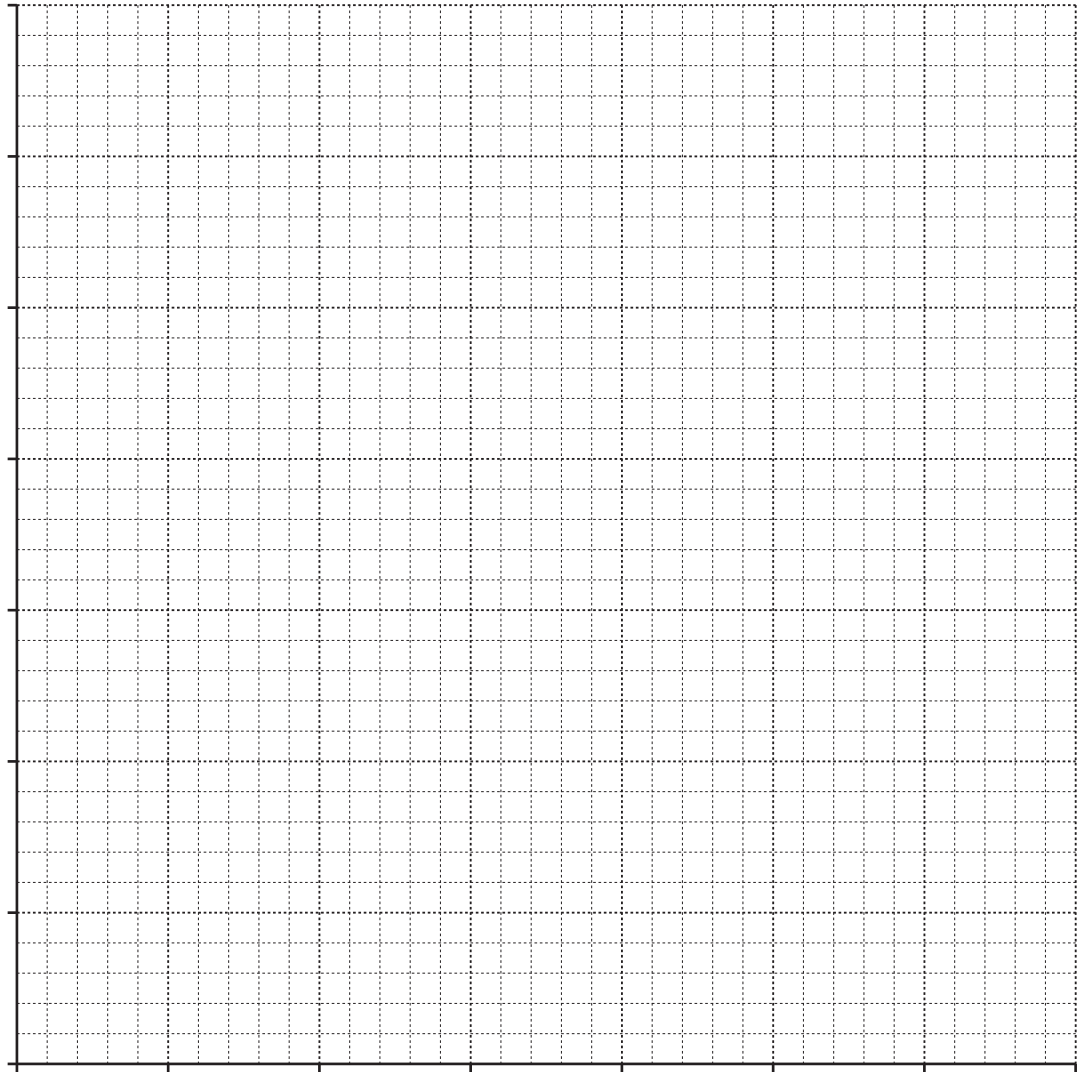
6(a) 6(b)(i)	
6(b)(ii)	Critical activities:

6(c)	

DO NOT WRITE ON THIS PAGE

7(a)	
7(b)(i)	
(answer space continues on the next page)	

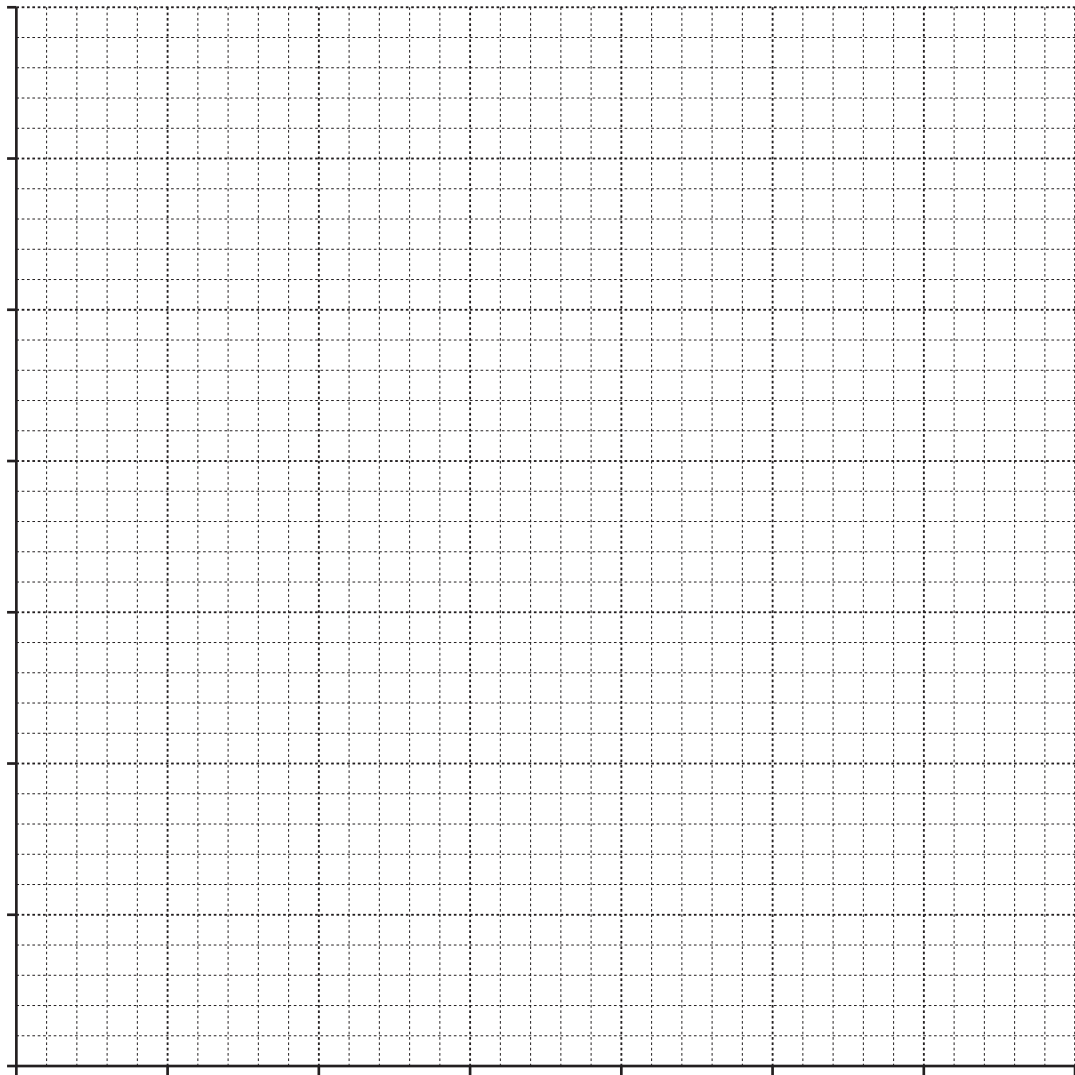
7(b)(i) (continued) There is a spare copy of this grid on the next page if needed.



7(b)(ii)

Maximum amount of money: £

7(c)

Spare grid for 7(b) if needed

[illegible]

[illegible]

[illegible]

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series. If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of Cambridge University Press & Assessment, which is itself a department of the University of Cambridge.