



Oxford Cambridge and RSA

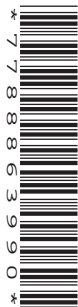
Thursday 16 May 2019 – Afternoon

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 (inserted)
- Formulae AS Further Mathematics A

You may use:

- a scientific or graphical calculator



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

Last name

INSTRUCTIONS

- The Question Paper will be found inside the Printed Answer Booklet.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- **Write your answer to each question in the space provided in the Printed Answer Booklet.** If additional space is required, use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.
- You are permitted to use a scientific or graphical calculator in this paper.
- 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 $g\text{ m s}^{-2}$. Unless otherwise instructed, when a numerical value is needed, use $g = 9.8$.

INFORMATION

- **You are reminded of the need for clear presentation in your answers.**
- The Printed Answer Booklet consists of **12** pages. The Question Paper consists of **8** pages.

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

2(a)

Vertex	J	K	L	M	N
Degree					

Vertex	P	Q	R	S	T
Degree					

2(b)

2(c)(i)

2(c)(ii)

2(d)

3(a)										
3(b)	6 9 5 7 6 4									
	Input list			<i>L</i>	<i>N</i>	Output list				
	(answer space continued on next page)									

3(b)	(continued) Continuation of table if needed			
	Input list	<i>L</i>	<i>N</i>	Output list
3(c)(i)				
3(c)(ii)				
3(d)				

4(a)

(answer space continued on next page)

4(a)	(continued)
	Space for working:
	Longest path(s):
	Shortest path(s):
4(b)	
4(c)	

5(a)	

5(b)(i)	

(answer space continued on next page)

5(b)(i) (continued)																																																																																																																																																	
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5(b)(ii)																																																																																																																																																	
5(b)(iii)																																																																																																																																																	

6(a)

Emma

	X	Y	Z
P			
Q			
R			

Drew

6(b)

(answer space continued on next page)

6(b) (continued)

6(c)

