



Oxford Cambridge and RSA

Wednesday 21 October 2020 – Afternoon

AS Level Further Mathematics A

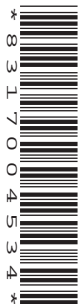
Y534/01 Discrete Mathematics

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

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Candidate number

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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 **12** pages.

ADVICE

- Read each question carefully before you start your answer.

1(a)

A													
B													
C													
D													

A													
B													
C													
D													

Output =

Space for working, if needed

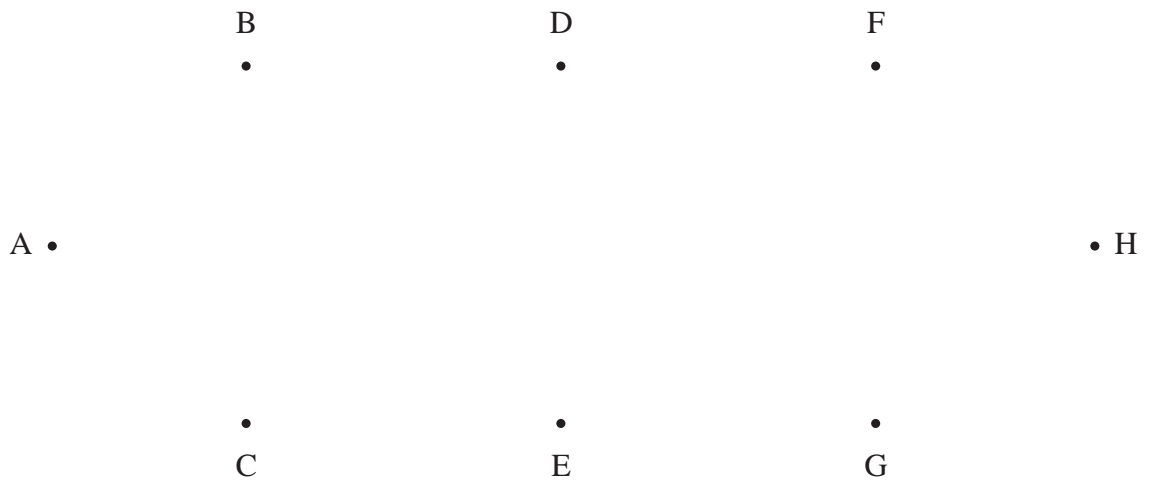
Area for working out the solution, consisting of multiple horizontal lines.

1(b)	
1(c)	
1(d)	
1(e)	

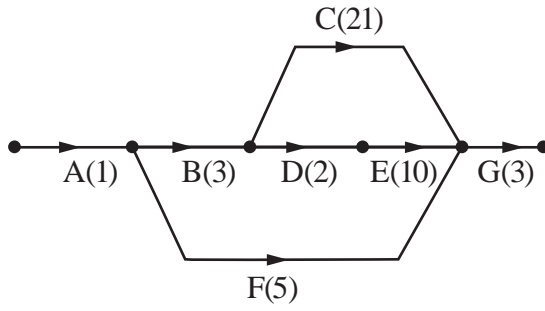
2(a)	
2(b)	
2(c)	

2(d)	Package	A	B	C	D	E	F	G	H	I	J
	Volume (m ³)	0.20	0.05	0.15	0.25	0.04	0.03	0.02	0.02	0.12	0.12
	Box 1:										
	Box 2:										
	Box 3:										
	Box 4:										
	Box 5:										
	Box 6:										
2(e)											

3(a)(i)									
3(a)(ii)									
3(a)(iii)									
3(b)	A	B	C	D	E	F	G	H	
	A	–	3	–	8	–	–	x	–
	B	3	–	5	–	–	–	–	–
	C	–	5	–	4	3	–	–	–
	D	8	–	4	–	5	–	–	9
	E	–	–	3	5	–	7	6	–
	F	–	–	–	–	7	–	–	–
	G	x	–	–	–	6	–	–	2
	H	–	–	–	9	–	–	2	–
<p>(answer space continued on next page)</p>									

3(b) **(continued)**Spare copy of diagram for **3(b)****3(c)(i)****3(c)(ii)**

4(a)



Minimum project completion time = _____ days

Critical activities:

4(b) First reason:

Second reason:

4(c)

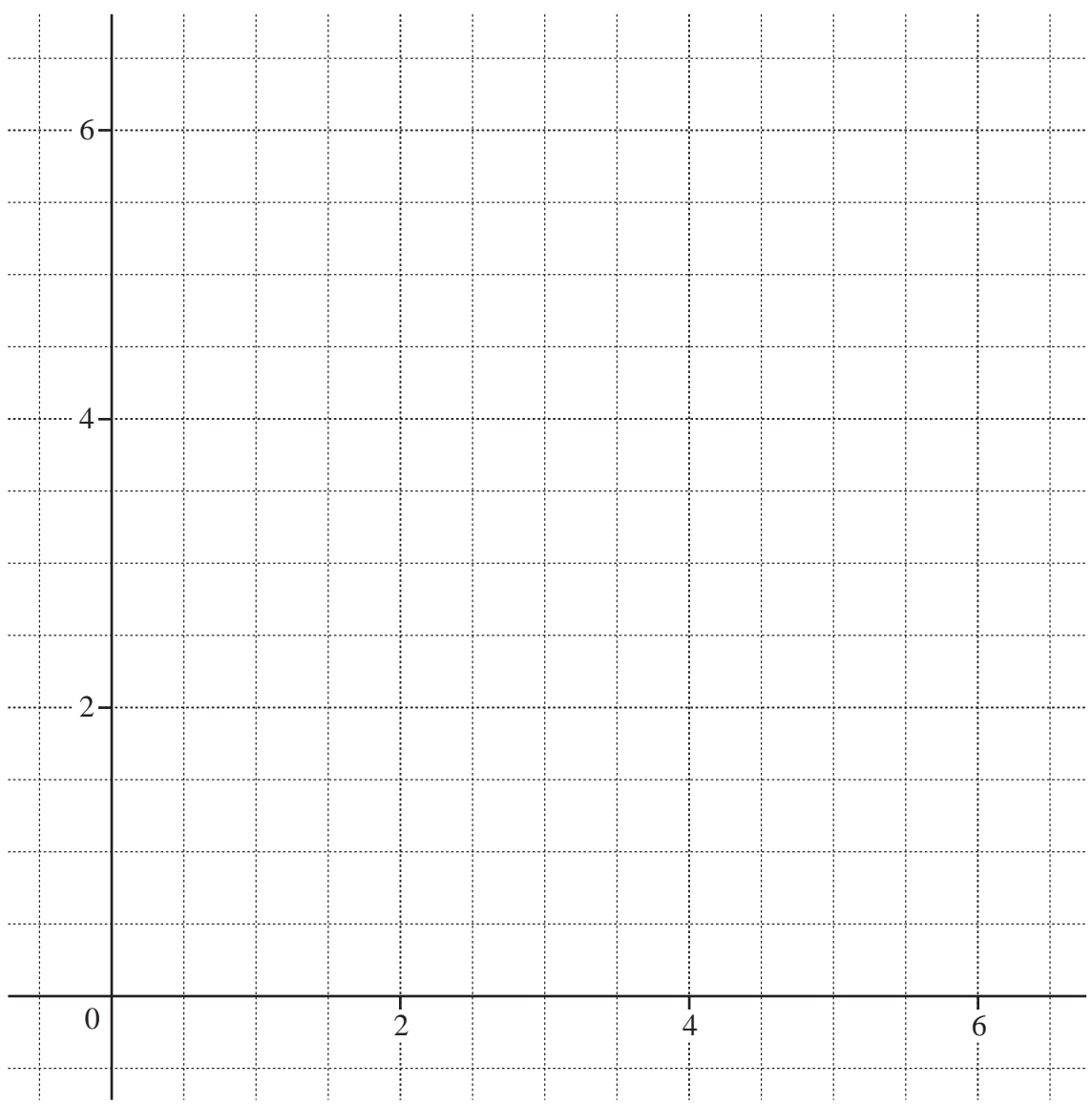
Longest float = _____ days

Interpretation:

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

6(a)	
6(b)(i)	
6(b)(ii)	
6(b)(iii)	

6(c)



ADDITIONAL ANSWER SPACE

If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).

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