

OCR

Oxford Cambridge and RSA

Wednesday 14 June 2017 – Morning**AS GCE MATHEMATICS (MEI)****4771/01** Decision Mathematics 1**PRINTED ANSWER BOOK**

Candidates answer on this Printed Answer Book.

OCR supplied materials:

- Question Paper 4771/01 (inserted)
- MEI Examination Formulae and Tables (MF2)

Other materials required:

- Scientific or graphical calculator

Duration: 1 hour 30 minutes

Candidate forename		Candidate surname	
Centre number		Candidate number	

INSTRUCTIONS TO CANDIDATES

These instructions are the same on the Printed Answer Book and the Question Paper.

- The Question Paper will be found inside the Printed Answer Book.
- Write your name, centre number and candidate number in the spaces provided on the Printed Answer Book. Please write clearly and in capital letters.
- **Write your answer to each question in the space provided in the Printed Answer Book.** Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the barcodes.
- You are permitted to use a scientific or graphical calculator in this paper.
- Final answers should be given to a degree of accuracy appropriate to the context.

INFORMATION FOR CANDIDATES

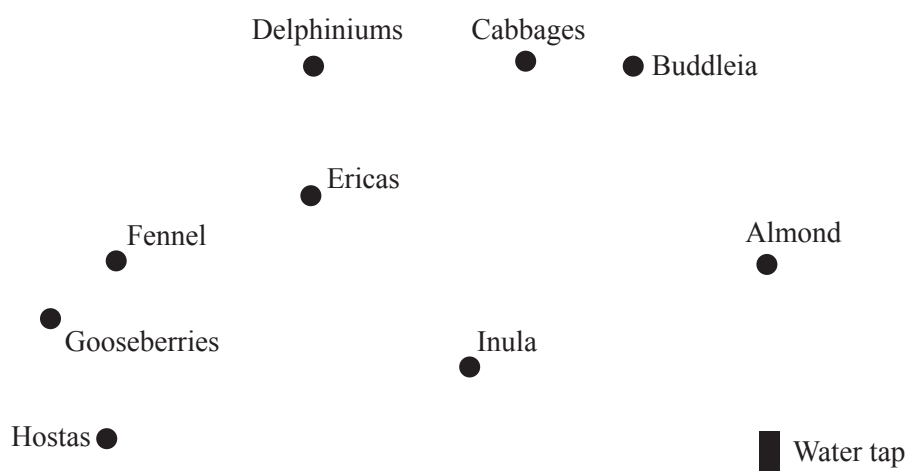
This information is the same on the Printed Answer Book and the Question Paper.

- The number of marks is given in brackets [] at the end of each question or part question on the Question Paper.
- You are advised that an answer may receive **no marks** unless you show sufficient detail of the working to indicate that a correct method is being used.
- The total number of marks for this paper is **72**.
- The Printed Answer Book consists of **12** pages. The Question Paper consists of **8** pages. Any blank pages are indicated.

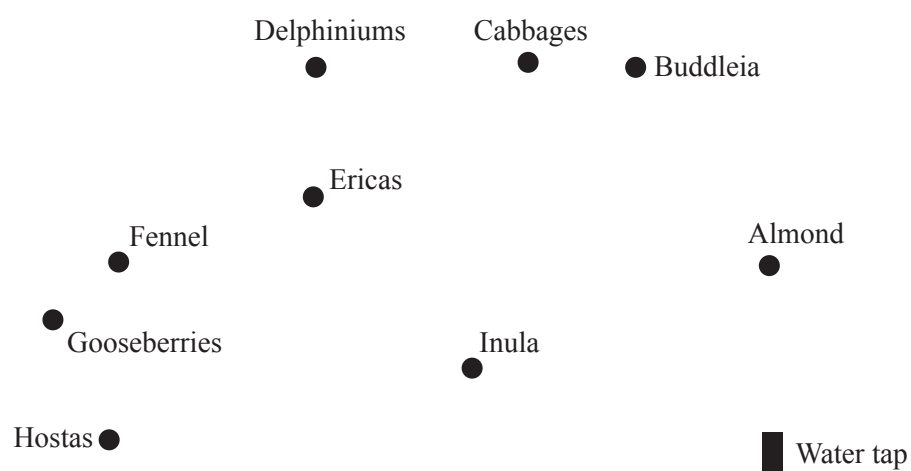
1 (i)

	W	A	B	C	D	E	F	G	H	I
W		10							40	20
A	10		17							
B		17		7						
C			7		12					18
D				12		8				
E					8		14			11
F						14		5		15
G							5		6	
H	40							6		18
I	20			18		11	15		18	

Length of pipe used =



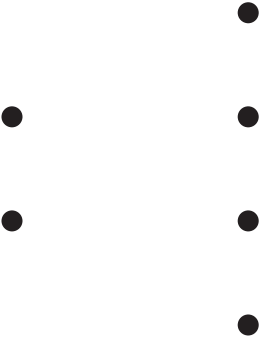
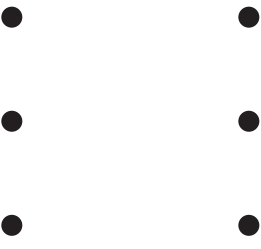
1 (ii)



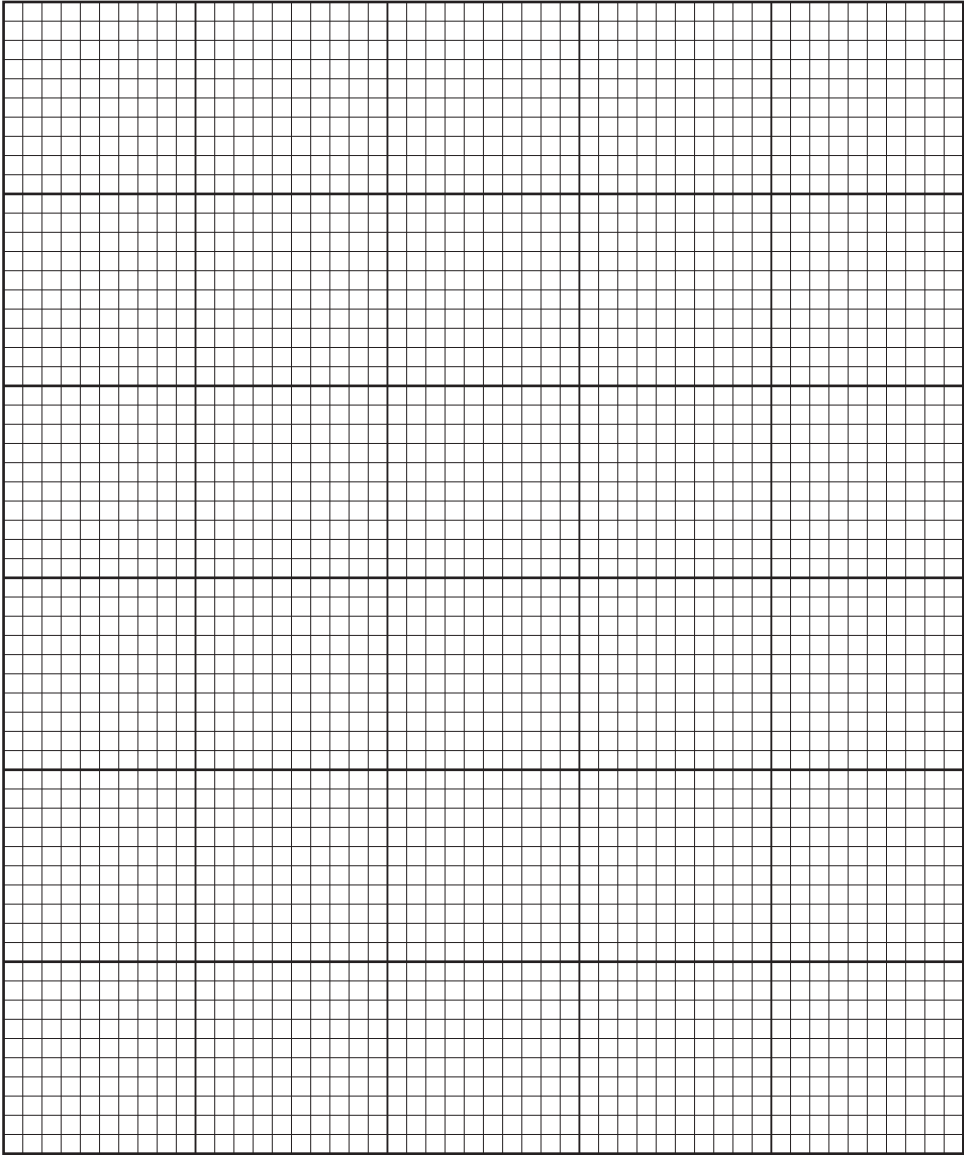
Minimum length of pipe:

Reason:

2(i)	
2(ii)	
2(iii)	

3 (i)							
3 (ii)	<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>						
3 (iii)	 <table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>						

3(iv)	<div style="text-align: center;"><div style="display: inline-block; width: 100px; height: 100px; border: 1px solid black; border-radius: 50%;"></div><div style="display: inline-block; width: 100px; height: 100px; border: 1px solid black; border-radius: 50%;"></div></div>
3(v)	

4(i)	
4(ii)	
4(iii)	<p>A spare copy of this graph can be found on page 11.</p> <div data-bbox="370 806 1339 1957"></div> <p>(answer space continued on next page)</p>

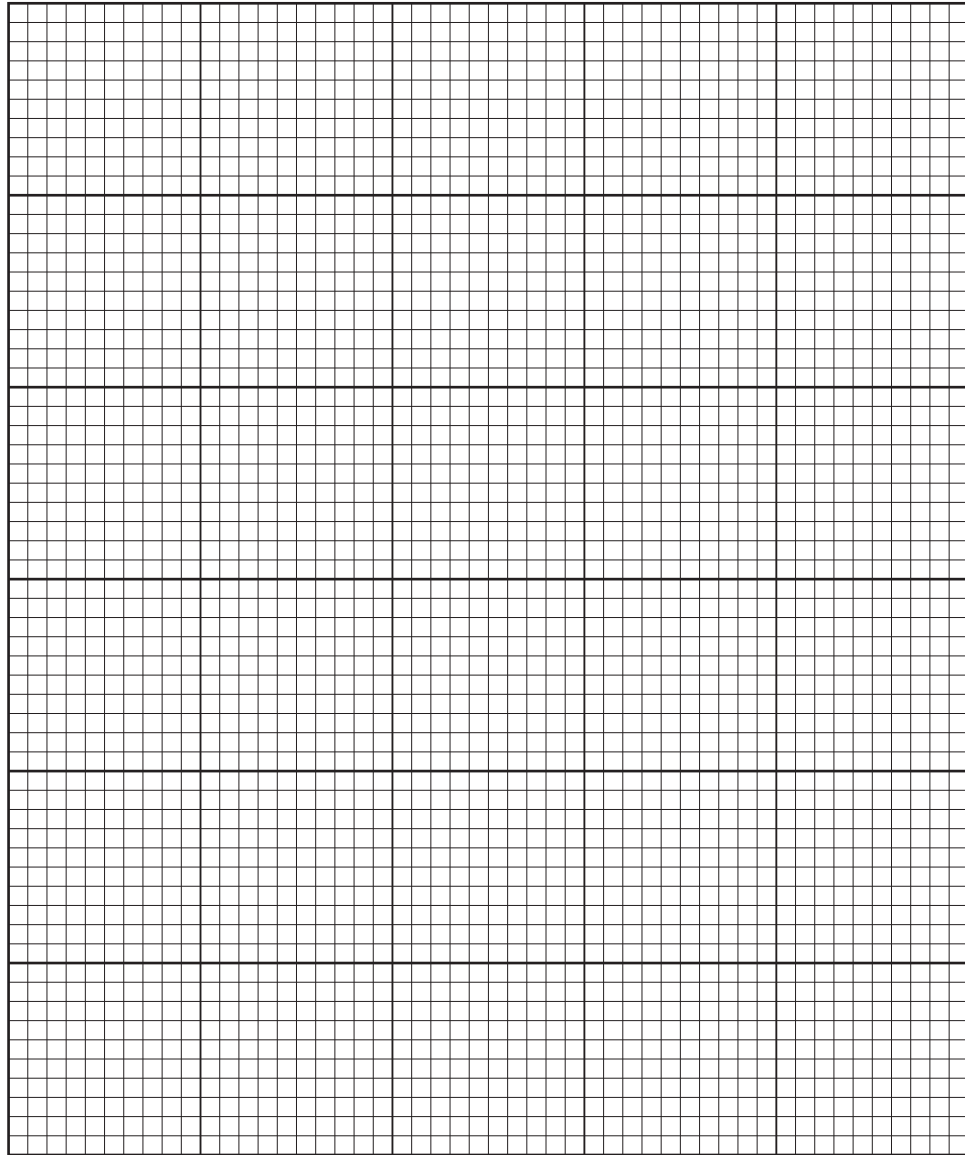
4(iii)	continued
4(iv)	
4(v)	

5(i)	
5(ii)	
5(iii)	
5(iv)	

5(v)	Two-digit random numbers: 01 99 52 67 23 62 85
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<p>6(i) & (ii)</p>																																																																																																																																					
<p>6(iii)</p>	<table border="1"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																																																																																																																																				
<p>6(iv)</p>	<table border="1"> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table>																																																																																																																																				

4(iii) Spare copy of graph for question 4(iii)



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