

Thursday 24 May 2012 – Morning

AS GCE MATHEMATICS

4736 Decision Mathematics 1

PRINTED ANSWER BOOK

Candidates answer on this Printed Answer Book.

OCR supplied materials:

- Question Paper 4736 (inserted)
- List of Formulae (MF1)

Other materials required:

- Scientific or graphical calculator

Duration: 1 hour 30 minutes



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

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

- The Question Paper will be found in the centre of 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.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Do **not** write in the bar codes.
- 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 or is clearly appropriate.

INFORMATION FOR CANDIDATES

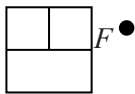
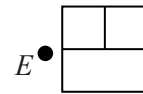
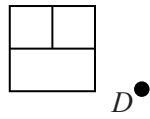
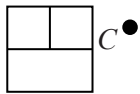
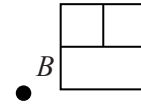
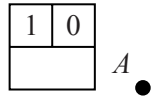
This information is the same on the Printed Answer Book and the Question Paper.

- The number of marks is given in brackets [] at the end of each question or part question on the Question Paper.
- **You are reminded of the need for clear presentation in your answers.**
- 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.

BLANK PAGE

PLEASE DO NOT WRITE ON THIS PAGE

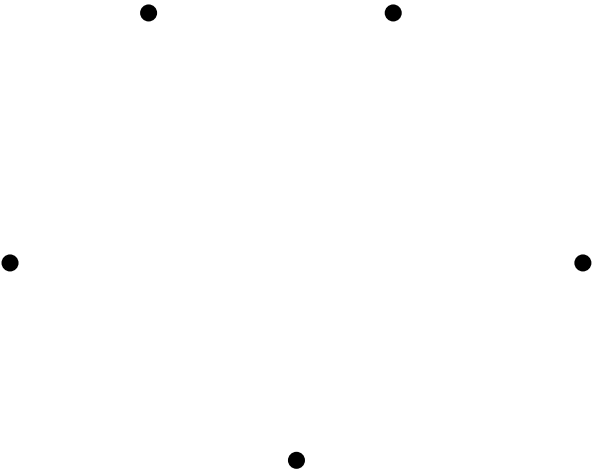
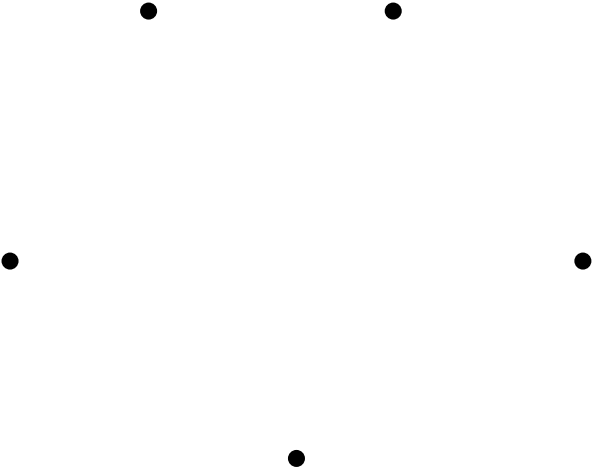
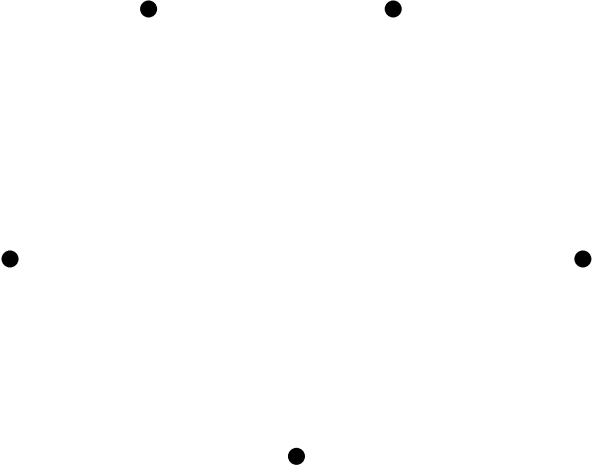
1 (i)(ii)

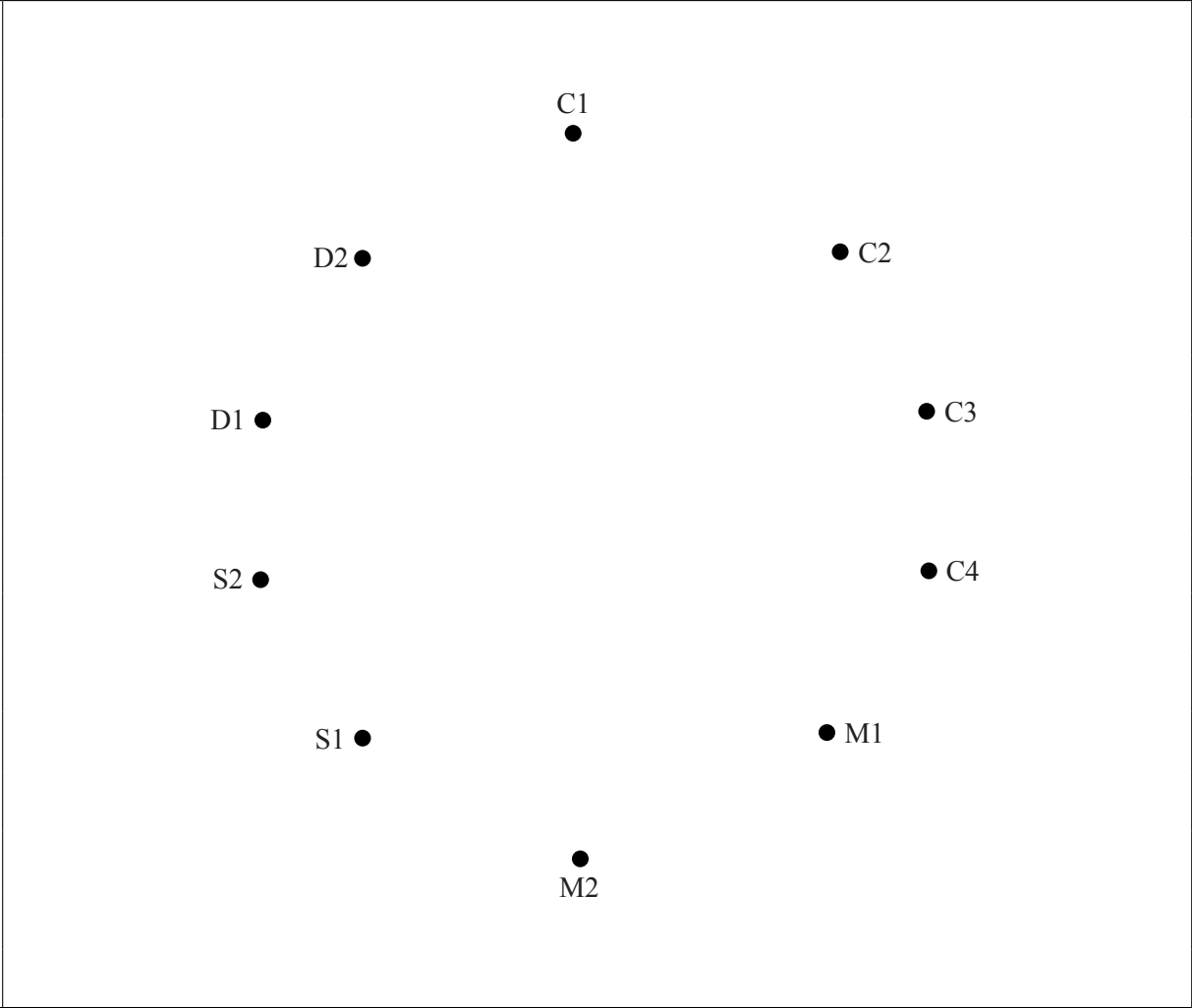


Key: order of becoming permanent

do not cross out your working values (temporary labels)

1 (iii)

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

<p>2 (ii)(a)</p>	 <p>The diagram shows ten points scattered across a rectangular area. The points are labeled as follows: C1 is at the top center; C2 is in the upper right; C3 is in the middle right; C4 is in the lower right; D1 is in the middle left; D2 is in the upper left; S1 is in the lower left; S2 is in the middle left; M1 is in the lower right; and M2 is at the bottom center.</p>
<p>2 (ii)(b)</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p>2 (ii)(c)</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

3 (i)	

3 (ii)	

3 (iii)	

3 (iv)	

4 (i)	
4 (ii)	
4 (iii)	

4 (iv)	
4 (v)	
4 (vi)	

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

5 (iv)	$NP = 40$	$SV = 80$	$RS = 130$
	$RT = 40$	$TV = 90$	$MV = 140$
	$RV = 50$	$PR = 100$	$PT = 140$
	$MS = 60$	$MP = 110$	$NT = 170$
	$MN = 70$	$PV = 120$	$ST = 170$
	$PS = 80$	$NS = 120$	$MR = 190$
	$NV = 80$	$NR = 130$	$MT = 190$
5 (v)			

6 (i)	
6 (ii)	
6 (iii)	
6 (iv)	