

OCR

Oxford Cambridge and RSA

Tuesday 20 June 2017 – Afternoon**FSMQ ADVANCED LEVEL****6993/01** Additional Mathematics**PRINTED ANSWER BOOK**

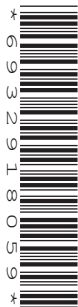
Candidates answer on the Printed Answer Book.

OCR supplied materials:

- Question Paper 6993/01 (inserted)

Other materials required:

- Scientific or graphical calculator

Duration: 2 hours

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.** If additional space is required, you should use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.
- 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 barcodes.
- You are permitted to use a scientific or graphical calculator in this paper.
- Final answers should be given correct to three significant figures where 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 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 **100**.
- The Printed Answer Book consists of **20** pages. The Question Paper consists of **8** pages. Any blank pages are indicated.

1	
2	
3	

4(i)

4(ii)

5 (i)	
5 (ii)	

6(i)	
6(ii)	

7(i)	
7(ii)	

[illegible]

9(i)	
9(ii)	

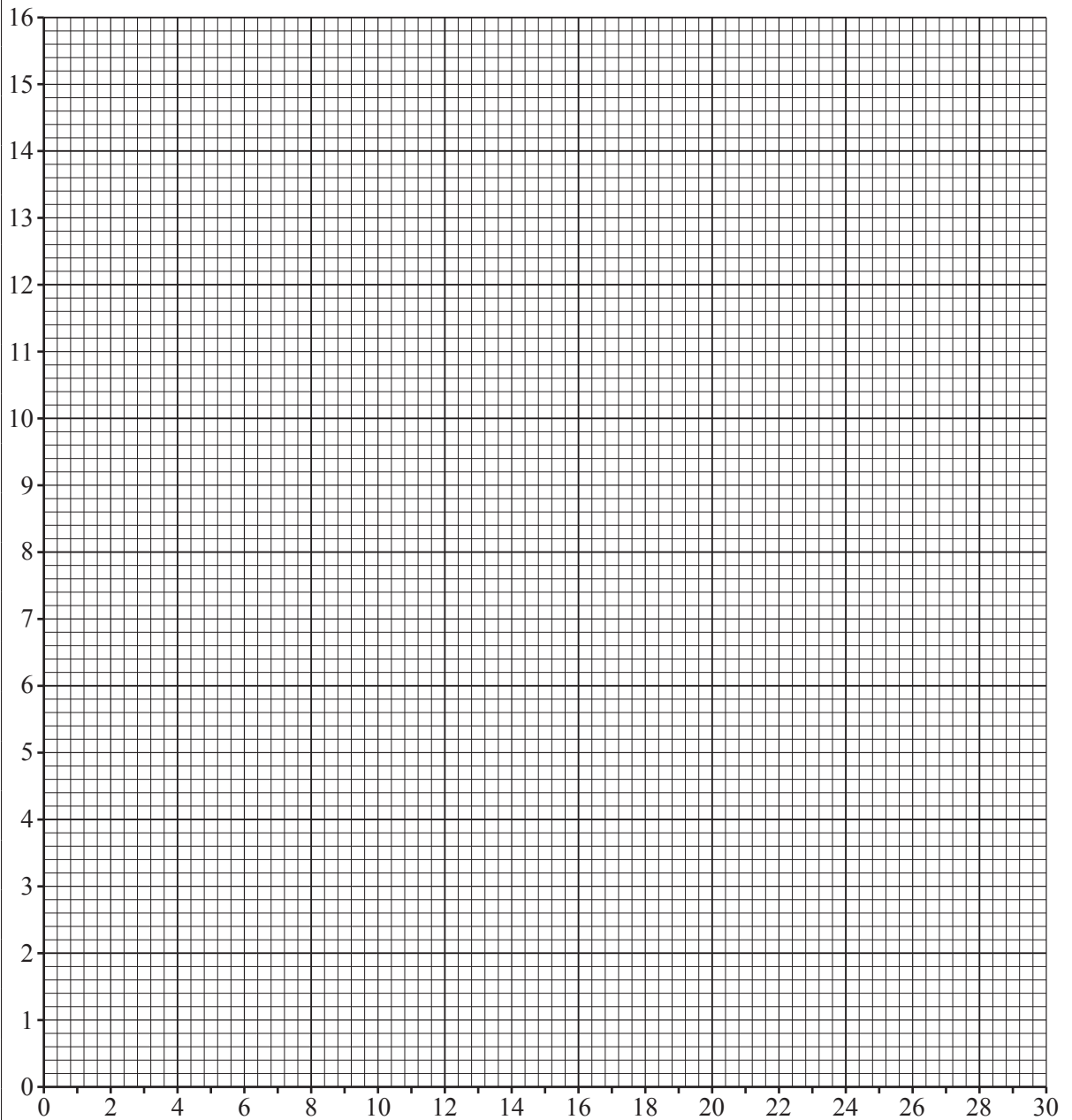
10 (i)	
10 (ii)	
10 (iii)	
10 (iv)	

11 (i)	
11 (ii)	

11 (iii)

12 (i)	
12 (ii)	
12 (iii)	
<i>The grid for 12 (iv) is on the facing page with a spare grid on page 18.</i>	
12 (v)	
12 (vi)	

12(iv)



There is a spare copy of this graph on page 18. If you wish to offer a second attempt, then you must cross through the attempt on this page.

13 (a)(i)	
13 (a)(ii)	

13 (b)(i)	
	13 (b)(ii)

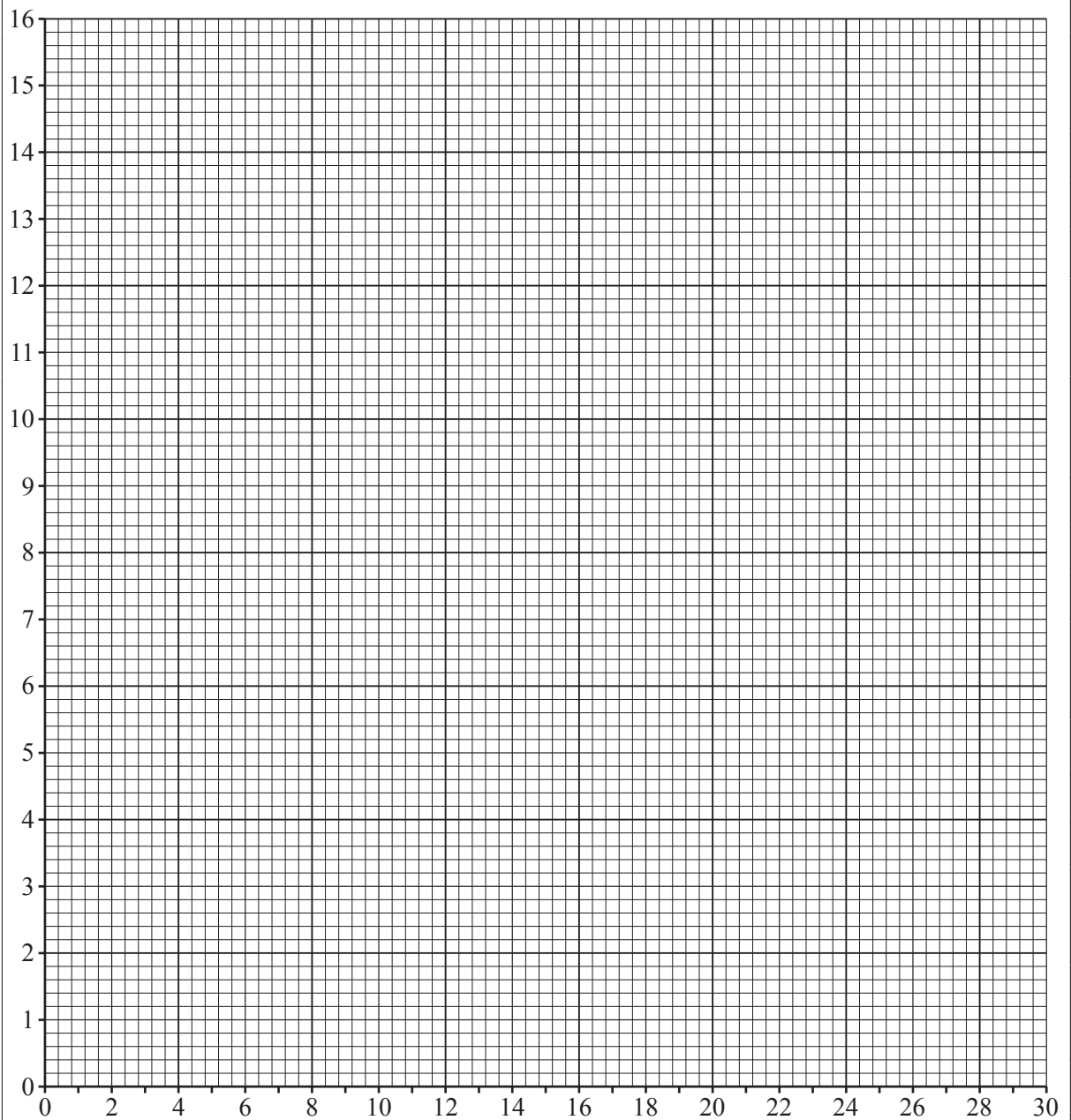
14(i)	
14(ii)	

[illegible]

This is a spare copy of the graph for Question 12 (iv).

Only write on this page if you want to offer a second attempt at the graph.

If you do so, then you must cross through the first attempt on page 13.



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).

[illegible]

[illegible]

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