

# **Tuesday 9 June 2015 – Morning**

### AS GCE MATHEMATICS (MEI)

4761/01 Mechanics 1

#### PRINTED ANSWER BOOK

Candidates answer on this Printed Answer Book.

#### **OCR** supplied materials:

- Question Paper 4761/01 (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 nu	ımber		

#### **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 bar codes.
- 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.
- The acceleration due to gravity is denoted by  $gm s^{-2}$ . Unless otherwise instructed, when a numerical value is needed, use g = 9.8.

#### INFORMATION FOR CANDIDATES

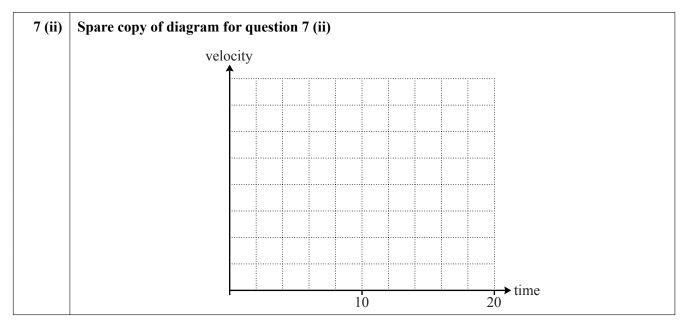
This information is the same on the Printed Answer Book and the Question Paper.

- 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 16 pages. The Question Paper consists of 8 pages. Any blank pages are indicated.



## THE ANSWER SPACE FOR QUESTION 1 BEGINS ON PAGE 3.

### PLEASE DO NOT WRITE IN THIS SPACE



### Section A (36 marks)

1	

2 (i)	
2 (1)	

2 (ii)	

3 (ii)	

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

4 (iv)	
<i>5</i> (°)	
5 (i)	
5 (ii)	

5 (iii)	
5 (iv)	

## Section B (36 marks)

6 (i)	
6 (ii)	
	(answer space continued on next page)

6 (ii)	(continued)
6 (iii)	

6 (iv)	

7 (i)					
7 (ii)	A spare copy of this	diagram can be fou	nd on page 2.		
		velocity			
		<u>                                     </u>	10	time 20	
	·				

7 (iii)	
7 (iv)	

<b>-</b> ( ) ( ()	
7 (v)(A)	
7 (v)(B)	

© OCR 2015 Contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.