

# Tuesday 18 June 2019 – Morning

# A Level Further Mathematics A

### Y543/01 Mechanics

## Printed Answer Booklet

#### Time allowed: 1 hour 30 minutes

7	
J	
00	
0	
00	
0	
U	
н	
н	
Ν	
×	

#### You must have:

- Question Paper Y543/01 (inserted)
- Formulae A Level Further Mathematics A

#### You may use:

• a scientific or graphical calculator



Please write clea	arly in I	olack	ink. <b>C</b>	)o no	ot writ	e in the barcodes.			
Centre number						Candidate number			
First name(s)									
Last name									

#### INSTRUCTIONS

- The Question Paper will be found inside the Printed Answer Booklet.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer all the questions.
- Write your answer to each question in the space provided in the Printed Answer **Booklet.** 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.
- 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.
- 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

- You are reminded of the need for clear presentation in your answers.
- The Printed Answer Booklet consists of **12** pages. The Question Paper consists of **4** pages.

1(a)	
1(b)	
1(c)	

2(a)	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
<b>2</b> (L)	
2(b)	
-	
-	
_	
-	
-	
2(c)	
-	

<b>3</b> (a)	
3(b)(i)	

4

3(b)(ii)	
<b>3</b> (a)(i)	
3(c)(i)	
3(c)(ii)	

4(a)	
-	
-	
-	
-	
-	
-	
4(b)	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
·	
-	
-	

5(a)	
5(b)(i)	

5(b)(ii)	
5(c)	
0(0)	

6(a)	
6(b)	
6(c)	

7(a)	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	
	(answer space continued on next page)

7(a)	(continued)
7(b)	
, (v)	

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).



#### **Copyright Information**

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

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.