OCR
Oxford Cambridge and RSA

# Monday 19 October 2020 – Afternoon

## A Level Mathematics A

**H240/03** Pure Mathematics and Mechanics

Printed Answer Booklet

**Time allowed: 2 hours**

*8233420418*

**You must have:**
- Question Paper H240/03 (inside this document)
- a scientific or graphical calculator

*H240/03*

Please write clearly in black ink. **Do not write in the barcodes.**

Centre number | | | | | | Candidate number | | | | |

First name(s) _____

Last name _____

**INSTRUCTIONS**
- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided in the **Printed Answer Booklet**. If you need extra space use the lined pages at the end of the Printed Answer Booklet. The question numbers must be clearly shown.
- Answer **all** the questions.
- Where appropriate, your answer should be supported with working. Marks might be given for using a correct method, even if your answer is wrong.
- 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 $g\,\text{m}\,\text{s}^{-2}$. When a numerical value is needed use $g = 9.8$ unless a different value is specified in the question.

**INFORMATION**
- The total mark for this paper is **100**.
- The marks for each question are shown in brackets **[ ]**.
- This document has **16** pages.

**ADVICE**
- Read each question carefully before you start your answer.

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## Section A: Pure Mathematics

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|---|---|
| **1** | |
| **2** | |
| **3(a)** | |
| **3(b)** | |

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**3(c)**

**3(d)**

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**4(a)**

**4(b)**

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**4(c)**

**4(d)**

**5(a)**

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**5(b)**

**5(c)**

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**6(a)**

**6(b)**

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| 6(b) | (continued) |

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## Section B: Mechanics

**7(a)**

**7(b)**

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**8(a)**

**8(b)**

**8(c)**

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**9(a)**

**9(b)**

**9(c)**

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**9(d)**

**10(a)**

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**10(b)(i)**

**10(b)(ii)**

**10(c)**

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**11(a)**

**11(b)**

**11(c)**

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|---|---|
| 11(c) | **(continued)** |
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| 11(d) | |
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## 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).

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