OCR
Oxford Cambridge and RSA

# Tuesday 19 June 2018 – Afternoon

## A2 GCE MATHEMATICS (MEI)

**4753/01** Methods for Advanced Mathematics (C3)

**PRINTED ANSWER BOOK**

Candidates answer on this Printed Answer Book.

**OCR supplied materials:**
- Question Paper 4753/01 (inserted)
- MEI Examination Formulae and Tables (MF2)

**Other materials required:**
- Scientific or graphical calculator

**Duration:** 1 hour 30 minutes

* 4 7 5 3 0 1 *

* 7 3 1 1 0 5 7 7 1 9 *

| 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.
- 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 barcodes.
- 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.

**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.

**Section A** (36 marks)

| | |
|---|---|
| **1 (i)** | |
| **1 (ii)** | |

**2**

| Function | Odd (Yes/No) | Even (Yes/No) | Periodic (Yes/No): if Yes state the period |
|---|---|---|---|
| $f(x) = \dfrac{x}{1-2x^2}$ | | | |
| $g(x) = 1 + \sin 2x$ | | | |
| $h(x) = 3e^{-2x^2}$ | | | |

**3 (i)**

**3 (ii)**

| | |
|---|---|
| 4 | |

**5 (i)**

**5 (ii)**

**6 (i)**

**6 (ii)**

| | |
|---|---|
| 7 | |

**Section B** (36 marks)

**8 (i)**

**8 (ii)**

**8 (iii)**

**(answer space continued on next page)**

| 8 (iii) | (continued) |
|---|---|

**9 (i)**

**9 (ii)**

**9 (iii)**

**9 (iv)**

## 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).