![OCR logo] **OCR**
RECOGNISING ACHIEVEMENT

ADVANCED SUBSIDIARY GCE

MATHEMATICS (MEI) **4761**

Mechanics 1

PRINTED ANSWER BOOK

Candidates answer on this printed answer book.

OCR supplied materials:
*   Question paper 4761 (inserted)
*   MEI Examination Formulae and Tables (MF2)

Other materials required:
*   Scientific or graphical calculator

Thursday 16 June 2011
Afternoon

Duration: 1 hour 30 minutes

4761

| 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 in the centre of 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. 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 g m 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.

2

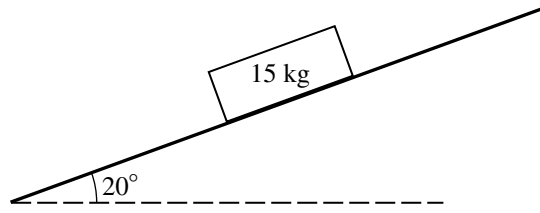**Section A** (36 marks)

1

2

Turn over

4

3 (i)	
3 (ii)	

4 (i)

15 kg

20°

Fig. 4

4 (ii)

Turn over

5

5

5 (continued)

Turn over

6 (i)

6 (ii)

Section B (36 marks)

7 (i)	

7 (ii) (A)	

7 (ii) (B)

7 (iii)

Turn over

7 (iv)

7 (v)

Turn over

14

8 (i)

8 (ii)

8 (iii)

8 (iv)

8 (v)

(answer space continued overleaf)

Turn over

8 (v) **(continued)**