

Centre number					Candidate number					
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## 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.
- Give non-exact numerical answers correct to 3 significant figures unless a different degree of accuracy is specified in the question or is clearly appropriate.

## **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 reminded of the need for clear presentation in your answers.
- The total number of marks for this paper is 72.
- The printed answer book consists of **12** pages. The question paper consists of **4** pages. Any blank pages are indicated.

1 (i)	
1 (ii)	
1 (iii)	

<b>2</b> (i)	
2 (ii)	

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

4 (i)	
4 (ii)	
1	

5 (i)	
5 (ii)	
5 (iii)	

6 (i)	
6 (ii)	

7(a)(i)	
7(a)(ii)	
7 (b)	

<b>8</b> (i)	
<b>8</b> (ii)	
8 (iii)	
- ()	
8 (iv)	
0(11)	

<b>8</b> (v)	

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9(a)(i)	
9(a)(ii)	
9(a)(iii)	

9 (b)	

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