



Cambridge International AS & A Level

CANDIDATE
NAME

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CENTRE
NUMBER

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CANDIDATE
NUMBER

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INFORMATION TECHNOLOGY

9626/31

Paper 3 Advanced Theory

May/June 2020

1 hour 45 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You may use an HB pencil for any diagrams, graphs or rough working.
- Calculators must **not** be used in this paper.

INFORMATION

- The total mark for this paper is 90.
- The number of marks for each question or part question is shown in brackets [].

This document has **16** pages. Blank pages are indicated.

2 Ultra-high definition television is available from video streaming services over the internet.

(a) Describe the features of ultra-high definition television systems that improve the viewing experience.

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..... [3]

6 Telecommunication companies are using fibre optic cables to supply internet services direct to people's homes because fibre optic cables are cheaper than copper cables.

(a) Explain the reasons, other than cost, why companies prefer to use fibre optic cabling.

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..... [4]

(b) Describe **three** disadvantages of using fibre optic cables.

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..... [3]

8 Nigel is creating a website which uses JavaScript. He uses scripts to manipulate text held in HTML elements so that it can be displayed on his pages.

(a) Explain what is meant by an 'HTML element'.

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..... [2]

Nigel uses this code to manipulate the text on his page. The line numbers are shown only for reference purposes.

```
1  
2 <html>  
3 <body>  
4  
5 <h2>Nigel uses this JavaScript to change HTML</h2>  
6  
7 <p id="a1">Nigel's original text was here</p>  
8  
9 <script>  
10 document.getElementById("a1").innerHTML = "Nigel changed this!";  
11 </script>  
12  
13 <p>The paragraph above was changed by Nigel's script.</p>  
14  
15 </body>  
16 </html>
```

(b) Explain, in detail, how this JavaScript would change what is displayed on the web page.

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.....
.....
..... [2]

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