A-level
INFORMATION AND COMMUNICATION TECHNOLOGY
Paper 3 The Use of ICT in the Digital World

Monday 11 June 2018 Morning Time allowed: 2 hours

Materials
For this paper you must have:
- a clean copy of the Candidate Booklet (enclosed for you to use when answering the questions in Section A).

Instructions
- Use black ink or black ball-point pen. Use pencil only for drawing.
- Fill in the boxes at the top of this page.
- Answer all the questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information
- The maximum mark for this paper is 100.
- The marks for questions are shown in brackets.
- Question 8 should be answered in continuous prose. In this question you will be marked on your ability to use good English, to organise information clearly, and to use specialist vocabulary where appropriate.
**Section A**

Answer all questions in the spaces provided.

<table>
<thead>
<tr>
<th>1 (a)</th>
<th>Michelle explained that the PopUp Bank had a hot restart facility and recommended that all organisations operating large scale systems need to be prepared should a disaster occur. Explain how a hot restart facility is used should a disaster occur.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (b)</td>
<td>Describe other disaster recovery options that would be appropriate for large organisations.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Explain the differences between the Data Protection Act 1998 and the General Data Protection Regulations 2018. [15 marks]
Michelle stated that the PopUp Bank was using blockchain technology.

Describe blockchain technology. [5 marks]
Michelle stated that, for banking systems, she recommended that all stages of the Systems Development Life Cycle should be used.

Describe the stages of the Systems Development Life Cycle.

[15 marks]
Section B

Answer all questions in the spaces provided.

5 (a) For the maintenance categories described in Table 1, identify the category from the list below and write the appropriate letter A, B, or C in each box.

A – Perfective maintenance
B – Adaptive maintenance
C – Corrective maintenance

Table 1

<table>
<thead>
<tr>
<th>Maintenance Categories</th>
<th>Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Minor amendments to operational systems that are needed for the business to continue</td>
<td></td>
</tr>
<tr>
<td>(ii) Cosmetic changes to improve the appearance/usability of a system</td>
<td></td>
</tr>
</tbody>
</table>

5 (b) Discuss the similarities and differences between systems maintenance and user support.

[12 marks]
Describe the factors that influence an ICT strategy. [6 marks]

Turn over for the next question
7 (a) List the main items of data needed by an online ordering system.

[6 marks]
7 (b) Describe how internal and external ICT systems may be used to process a customer’s order.

[8 marks]

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

Turn over for the next question
“The growth and complexity of ICT systems for organisations has outpaced the development of security systems and procedures to protect those systems.”

Using examples, discuss the extent to which you agree or disagree with this statement. [20 marks]

In this question you will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate.

This space is available for planning your answer, if you wish to use it.
There are no questions printed on this page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED