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Candidate Number

ADVANCED SUBSIDIARY (AS) General Certificate of Education 2013

Information and Communication Technology

Assessment Unit AS 1

assessing

Module 1: Components of ICT

[AW111]

TUESDAY 11 JUNE, AFTERNOON



AW111

TIME

2 hours.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.

Complete in blue or black ink only. Do not write in pencil or with a gel pen.

Answer all six questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 120 marks including a maximum of 5 for quality of written communication.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.



| • | tment | Target Sales (£) | Actual Sales (£) | |
|--------|-------------------------------|--|-------------------------|------|
| Men | | 15 000 | 12341 | |
| Wome | en | 20 000 | 21304 | |
| Child | ren | 10 000 | 10312 | |
| a) (i) | Data | to the table , explain wha | | |
| | | | | |
| | | | | |
| (ii) | By referring to is meant by k | o the figures for the Men's nowledge. | s Department, explain v | what |
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| De | epartment | Target Sales (£) | Actual Sales (£) | Target achieved? | |
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| W | omen | 20 000 | 21304 | Υ | |
| CI | hildren | 10 000 | 10312 | Υ | |
| To | otal | 45 000 | 43930 | N | |
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| (c) | | | | | |
| (c) | The conter | nts of cell F4 should | d be 12341 . | [4] | |
| (c) | The conter | nts of cell F4 should and describe the ty | be 12341 . The of error which have | [4] as occurred. | |
| (c) | The conter | nts of cell F4 should and describe the ty | d be 12341 . | [4] as occurred. | |
| (c) | The conter (i) Name Name | nts of cell F4 should and describe the ty | d be 12341 . ope of error which ha | [4] as occurred. | |

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| (ii) | Explain how verification can be used to detect errors. | Examin | er Only |
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| (d) | The product code for a particular item is 45667 , where 7 is the modulus 11 check digit. | Examin Marks | er Only Remark | |
|------|--|-----------------|-------------------|---|
| | Show how this check digit is calculated. | | | |
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| 2 | One | e of the main components of the CPU is internal memory. | Examin Marks | er Only Remark |
|------|-----|---|-----------------|-------------------|
| | (a) | Explain how each of the following is used in a typical computer. | | |
| | | ROM | | |
| | | | | |
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| | | | | |
| | | RAM | | |
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| | | [4] | | |
| | (b) | Name and describe two of the other main components of the CPU. | | |
| | (D) | | | |
| | | Name | | |
| | | Description | | |
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| | | Name | | |
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| 3 | A h | otel | has a number of interactive terminals for use by guests. | Examin Marks | er Only Remark |
|------|-----|------|--|-----------------|-------------------|
| | (a) | Eac | ch terminal can be used to access the Internet. | | |
| | | (i) | Describe the main features of a typical web browser. | | |
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| | | (ii) | Describe the main features of a typical search engine. | | |
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| Gue | ests can access the terminals using speech input. | | Examin Marks | er Only Remark |
|-----|---|-----|-----------------|-------------------|
| (b) | Identify two hardware components required specifically for speech input. | | | |
| | 1 | | | |
| | 2 | [2] | | |
| (c) | Identify two software components required specifically for speech input. | | | |
| | 1 | | | |
| | 2 | [2] | | |
| (d) | Identify two benefits and two drawbacks of using speech input. | | | |
| | Benefits | | | |
| | 1 | | | |
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| | Drawbacks | | | |
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| (e) | The speech input application was developed using open source software. | Examin Marks | er Only Remark |
|------|--|-----------------|-------------------|
| | Explain what is meant by open source software. | | |
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| 4 | A c | ompany's LAN is connected to the Internet. | Examine Marks | r Only Remark |
|------|-----|---|------------------|------------------|
| | (a) | Name and describe two different types of LAN topology. | Warks | Remark |
| | | Name | | |
| | | Description | | |
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| (b) | Explain the purpose of each of the following network resources. | Examine Marks | er Only Remark |
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| | Switch | | |
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| | Proxy server | | |
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| (c) TC | P/IP is the main communication protocol used on the Internet. | | Examiner Only Marks Remark |
|-----------------|---|-------|-----------------------------|
| (i) | Explain what is meant by a communications protocol. | | |
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| | | _ [3] | |
| /:: \ | Describe the main features of the ID part of this protect | | |
| (11) | Describe the main features of the IP part of this protocol. | | |
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| (d) | Describe two reasons why the company should consider selling its products using the Internet. | Examin Marks | er Only Remark |
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| 5 | An | organisation introduces a new database system. | | Examine Marks | er Only Remark | |
| | (a) | During the development of the system, a feasibility study was carried out. | ed | | | |
| | | Explain what is meant by social feasibility. | | | | |
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| | | | [3] | | | |
| | (b) | Describe what happens during the design stage of an ICT system. | | | | |
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| (c) | The information system was tested. | Examiner Only Marks Remark |
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| | Describe the main features of | |
| | Application testing | |
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| | Acceptance testing | |
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| | (d) | Describe two advantages of a custom-built system over an off-the-shelf system. | Examiner O Marks Re | Only mark |
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| | (e) | Explain what happens during system changeover. | | |
| | (6) | | | |
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| 6 | EF | TPOS technology is used extensively in supermarkets. | Examin Marks | er Only Remark |
|------|-----|--|-----------------|-------------------|
| | (a) | Describe the main features of EFTPOS technology. | | |
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| (b) | Describe one benefit and one drawback of this use of EFTPOS for: | Examin Marks | er O Rer |
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| | The supermarket | | |
| | Benefit | | |
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| | Drawback | | |
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| | Customers | | |
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| | Drawback | | |
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| S | upermarkets use RFID technology. | Examiner Only Marks Remark |
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| (c |) Describe the main features of RFID technology. | marks Remark |
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| (0 | Describe one advantage of using RFID instead of barcode for stock control. | |
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| - | THIS IS THE END OF THE QUESTION PAPER | Total Question 6 |
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Total Marks

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