

New  
Specification



Rewarding Learning

ADVANCED SUBSIDIARY (AS)  
General Certificate of Education  
January 2009

Centre Number

|    |  |
|----|--|
| 71 |  |
|----|--|

Candidate Number

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## Information and Communication Technology

Assessment Unit AS 1

*assessing*

Module 1: Components of ICT

[AW111]



MONDAY 12 JANUARY, AFTERNOON

### 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.

Answer **all five** 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.

| For Examiner's use only |       |
|-------------------------|-------|
| Question Number         | Marks |
| 1                       |       |
| 2                       |       |
| 3                       |       |
| 4                       |       |
| 5                       |       |
| QWC                     |       |

|                    |  |
|--------------------|--|
| <b>Total Marks</b> |  |
|--------------------|--|

1 Each component used in the assembly of an airplane has a unique 4-digit product number.

**Example**

| Product number | Product description |
|----------------|---------------------|
| 6548           | Right-side engine   |
| 7536           | Left-side engine    |
| 1538           | Right-side wing     |

(a) By referring to the **shaded cell**, explain what is meant by each of the following.

Data \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Information \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ [4]

| Examiner Only |        |
|---------------|--------|
| Marks         | Remark |
|               |        |





2 The specification for a PC includes 1 GB RAM and 2 MB cache memory.

(a) Describe the purpose of:

RAM \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ [3]

Cache memory \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ [3]

| Examiner Only |        |
|---------------|--------|
| Marks         | Remark |
|               |        |

(b) The PC can be purchased with either a DVD drive or a Blu-ray disc drive.

(i) Explain how data is written to and read from a DVD.

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[4]

(ii) Describe one advantage and one disadvantage of using a Blu-ray disc instead of a DVD for watching a movie on the PC.

Advantage \_\_\_\_\_

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Disadvantage \_\_\_\_\_

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[4]

| Examiner Only |        |
|---------------|--------|
| Marks         | Remark |
|               |        |



3 Many small businesses use a LAN.

(a) Identify **three** advantages of replacing standalone computers with a network.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_ [3]

(b) Describe the main features of a bus/star composite network.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ [6]

| Examiner Only |        |
|---------------|--------|
| Marks         | Remark |
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(d) Describe the main features of Bluetooth technology.

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[4]

| Examiner Only |        |
|---------------|--------|
| Marks         | Remark |
|               |        |

4 Supermarkets make extensive use of ICT.

(a) Describe **two** benefits to a supermarket of using a barcode system.

1. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ [4]

| Examiner Only |        |
|---------------|--------|
| Marks         | Remark |
|               |        |

(b) Some supermarkets plan to implement RFID technology.

(i) Describe the main features of RFID technology.

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[4]

(ii) Describe **two** advantages of RFID technology over the use of barcodes.

1. \_\_\_\_\_

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2. \_\_\_\_\_

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[4]

| Examiner Only |        |
|---------------|--------|
| Marks         | Remark |
|               |        |



5 A new information system is being developed.

(a) Describe **two** main costs involved in producing information.

1. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ [4]

| Examiner Only |        |
|---------------|--------|
| Marks         | Remark |
|               |        |

(b) The team developing the system consists of a project manager and a team of programmers.

Describe the main roles of

The project manager \_\_\_\_\_

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A programmer \_\_\_\_\_

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[6]

| Examiner Only |        |
|---------------|--------|
| Marks         | Remark |
|               |        |











