



Rewarding Learning

ADVANCED SUBSIDIARY (AS)  
General Certificate of Education  
2025

Centre Number

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Candidate Number

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# Digital Technology

Assessment Unit AS 1

*assessing*

Approaches to  
System Development



[SDT11]

\*SDT11\*

**FRIDAY 16 MAY, AFTERNOON**

### TIME

1 hour 30 minutes.

### INSTRUCTIONS TO CANDIDATES

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

**You must answer the questions in the spaces provided.**

**Do not write outside the boxed area on each page or on blank pages.**

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

Answer **all six** questions.

### INFORMATION FOR CANDIDATES

The total mark for this paper is 100.

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

Quality of written communication will be assessed in Questions **1(c)**, **4(c)** and **6(c)**.



**1 (a)** A computer system consists of three main components. One component is the user interface.

**(i)** Explain what is meant by the user interface.

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[3]

**(ii)** List the other two main components of a computer system.

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

2. \_\_\_\_\_ [2]

**(b)** The programmer writes the source code during system development.

**(i)** Explain what is meant by source code.

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[2]



(ii) Describe three other responsibilities of the programmer during system development.

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

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

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

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







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2 (a) By referring to a stock control system, explain the difference between functional and non-functional user requirements.

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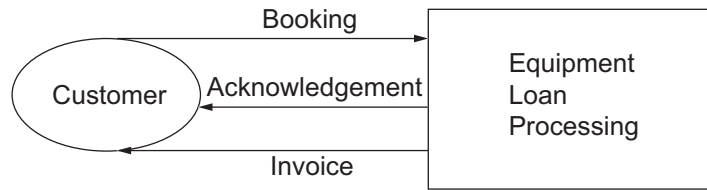
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[4]



(b) A company lends out office equipment to its customers. Equipment must be booked in advance.

The following context level DFD shows how bookings are processed.



- When a booking is received, it is logged in the Booking file and an acknowledgement sent to the customer
- At the end of each month, all bookings for the next month are entered into the Loan file so that bookings can be planned
- When a piece of equipment goes out on loan, the Loan file is updated and the customer is invoiced

Produce a Level 1 DFD for the system as described above.

Blank area for drawing the Level 1 DFD.

[11]

[Turn over



3 (a) Distinguish between the following stages in the creation of a new information system.

Design

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Development

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[4]





(c) A new information system is tested in a number of different ways.

(i) During system testing, a test plan is used.

Identify three main components of a test plan.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_ [3]

(ii) Distinguish between the following types of testing.

Beta testing

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Acceptance testing

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[6]





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**5** An information system is developed using Rapid Application Development (RAD).

**(a)** Describe the main features of RAD.

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[4]

The project manager uses Gantt charts and critical path analysis (CPA).

**(b)** Describe the purpose of a Gantt chart.

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[4]



**(c)** Describe how CPA is used in project management.

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[4]

An organisation creates a disaster recovery plan.

**(d)** State the purpose of a disaster recovery plan.

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[2]

**(e)** Identify three main contents of a disaster recovery plan.

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

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

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

[3]

[Turn over



**6 (a)** Distinguish between the following programming terms.

Algorithm

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Syntax

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[4]

**(b)** Distinguish between each of the following programming concepts.

Selection

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Iteration

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[4]





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<b>For Examiner's use only</b>	
<b>Question Number</b>	<b>Marks</b>
1	
2	
3	
4	
5	
6	

<b>Total Marks</b>	
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**Examiner Number**

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