

**ADVANCED GCE**

**APPLIED INFORMATION AND COMMUNICATION  
TECHNOLOGY**

**G054**

Software Development

Candidates answer on the question paper.

**OCR supplied materials:**

- Instructions for Candidates G054/IC (inserted)

**Other materials required:**

- Candidate's pre-prepared materials

**Friday 21 January 2011  
Morning**

**Duration: 1 hour 30 minutes**



Candidate forename		Candidate surname	
--------------------	--	-------------------	--

Centre number						Candidate number				
---------------	--	--	--	--	--	------------------	--	--	--	--

**INSTRUCTIONS TO CANDIDATES**

- The insert will be found in the centre of this document.
- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Attach your pre-prepared materials for tasks 1-4.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **100**.
- No marks will be awarded for using brand names of software packages or hardware.
- The quality of your written communication will be assessed through Q6 and Q12.
- This document consists of **12** pages. Any blank pages are indicated.

For Examiner's Use		Max
Task 2		15
Task 3		10
Task 4		5
1		6
2		4
3		8
4		6
5		4
6		12
7		6
8		4
9		2
10		8
11		3
12		7
<b>Total</b>		<b>100</b>

OCR is an exempt Charity

**BLANK PAGE**

**PLEASE DO NOT WRITE ON THIS PAGE**

Section A

This section relates to the case study on A Clean House.

1 During the feasibility study the purpose of the new system is defined.

Explain, using examples from A Clean House, why it is important to clearly define the purpose of the new system.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [6]

2 User requirements have been defined by the owner of A Clean House.

Describe **two** defined user requirements that relate to the outputs from the new system.

Requirement 1 .....  
.....  
.....  
.....  
  
Requirement 2 .....  
.....  
.....  
..... [4]

3 During the development of the feasibility study functional requirements are defined.

(a) Describe **one** functional requirement that has been defined by the administration staff.

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

(b) Describe the defined hardware non-functional requirements.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [6]

4 During the development of the feasibility study, process constraints should be considered.

(a) Describe the defined software constraint.

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

(b) (i) Identify **one** other process constraint, apart from budget and hardware, that has been defined by A Clean House.

..... [1]

(ii) Describe how this has been defined by A Clean House.

.....  
.....  
.....  
.....  
..... [3]

5 Describe the problems caused by the current system which relate to the customers of A Clean House.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [4]

6 One of the concerns of the owner of A Clean House is lack of security.

Explain, using examples, how A Clean House could use the Computer Misuse Act if security is breached.

The quality of written communication will be assessed in your answer to this question.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

[12]

7 The Cleaning Manager of A Clean House will be interviewed during the feasibility study.

Describe **two** advantages and **one** disadvantage of using interviews as an investigation method.

Advantage 1 .....

.....  
.....

Advantage 2 .....

.....  
.....

Disadvantage .....

.....  
.....

[6]

8 Following the implementation of the new system, user manuals will be passed to A Clean House.

Explain how user manuals can be used by the staff of A Clean House.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

[4]

**Section B**

**You do not need the case study or your notes to answer these questions.**

**9** During the design of a new system, a physical design specification is developed.

Identify **two** components of the hardware specification part of the physical design specification.

Component 1 .....

.....

Component 2 .....

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

**10** Dataflow diagrams and flowcharts can be used during the analysis and design stage of the systems lifecycle.

**(a)** Explain the function of a L0 dataflow diagram (context diagram).

.....

.....

.....

.....

.....

..... **[4]**

**(b)** Draw and label **two** components of a flowchart.



11 When a system has been developed and tested it needs to be implemented.

Describe the pilot implementation method.

.....  
.....  
.....  
.....  
..... [3]

12 Evaluate the use of e-learning as a training method.

The quality of written communication will be assessed in your answer to this question.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [7]

**10**  
**BLANK PAGE**

**PLEASE DO NOT WRITE ON THIS PAGE**

11  
BLANK PAGE

PLEASE DO NOT WRITE ON THIS PAGE

**PLEASE DO NOT WRITE ON THIS PAGE**



**Copyright Information**

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website ([www.ocr.org.uk](http://www.ocr.org.uk)) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.