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Centre number						Candidate number				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
ADVANCED GCE**

G054

**APPLIED INFORMATION AND
COMMUNICATION TECHNOLOGY**

Software Development

FRIDAY 21 JANUARY 2011: Morning

DURATION: 1 hour 30 minutes

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

Candidates answer on the question paper.

OCR SUPPLIED MATERIALS:

Instructions for Candidates G054/IC (inserted)

OTHER MATERIALS REQUIRED:

Candidate's pre-prepared materials

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

- **Write your name, centre number and candidate number in the boxes on the first page. 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.**
- **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.**

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.

[4]

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]

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