

ADVANCED SUBSIDIARY GCE
INFORMATION AND COMMUNICATION TECHNOLOGY **G061**
Information, Systems and Applications

Friday 27 May 2011
Morning

Duration: 2 hours

Candidates answer on the question paper.

OCR supplied materials:

None

Other materials required:

None



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

- 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.

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 **120**, of which marks are allocated to the assessment of the quality of written communication where an answer requires a piece of extended writing.
- This document consists of **20** pages. Any blank pages are indicated.

Progressville is a small village and is trying to raise money by hiring out its village hall. They have set up a committee to oversee the project.

1 The committee needs to let people know that the hall is available for hire.

(a) One method they could use to convey information is text.

Identify and give an advantage of **two** other methods they could use to convey information.

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(b) The committee is looking at different methods of advertising the hall for hire.

Compare the use of a website with a printed leaflet for advertising the village hall.

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2 The committee will need a computer to organise the bookings.

(a) The computer will need to have applications software such as spreadsheet, database, word processor and desktop publisher installed.

Identify **two** other different types of software that could be installed and for each, give an example of its use by the committee.

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(b) The committee has graphics software installed on its computer.

Identify **two** tasks that the graphics software could be used to complete.

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(c) The committee wants to produce a leaflet advertising the hall.

Describe, using examples, how the following can affect the quality of information included in the leaflet.

Completeness

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Presentation

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Relevance

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(d) The leaflet will contain headers, sections and frames.

Describe the characteristics of headers, sections and frames.

Headers
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Sections
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Frames
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(e) The committee needs to transfer the leaflet between its members' computers so they can all help create it. The leaflet, including photographs, will be no more than 900MB.

(i) Identify an appropriate storage device that could be used to transfer the leaflet between different computers.
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..... [1]

(ii) Justify your choice of device.
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..... [1]

3 The committee has asked a company to create a database that it can use to store details about the hire of the hall.

(a) Describe, using examples, the role of referential integrity and attributes in databases.

(i) Referential Integrity

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..... [2]

(ii) Attributes

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..... [2]

(b) The data has been normalised.

(i) Give **two** characteristics of data in first normal form (1NF).

1
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..... [2]

(ii) Give **two** characteristics of data in third normal form (3NF).

1
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2
..... [2]

(c) Select the most appropriate data type for the following fields from the database and give a reason for your choice:

House Number

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Price Per Hour

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HireID

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[6]

(d) Data entered into the database needs to be verified and validated.

(i) What is the purpose of verification?

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(ii) Describe **two** different **validation** methods suitable for a telephone number.

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(e) The database can have different styles of user interface.

Describe the following styles of user interface and for each give an example of how it could be used in the database.

Command based
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Menus
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(f) The database will have a tailored data entry screen.

One of the design considerations for the tailored data entry screen is colour.

Describe **three** other design considerations for the tailored data entry screen.

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5 The committee want to create a model to predict income from the hire of the hall over the next three years.

(a) Explain **three** advantages of using a spreadsheet to create the model.

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(b) Explain, using examples, how functions and formulae could be used when creating the spreadsheet model.

Functions

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Formulae

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6 The committee has set up a website that can be used to give information about the village hall and be used to book the hall.

(a) The website uses static and dynamic queries.

Describe the difference between a static and a dynamic query.

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..... [2]

(b) Potential visitors could use a search engine to find the village hall website.

(i) Give an example of a **simple** query that could be typed into a search engine to find the village hall website.

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..... [1]

(ii) Give an example of a **complex** query that could be typed into a search engine to find the village hall website.

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..... [1]

- 7 The committee wants to produce a letter to be sent to every household in the village letting them know about the new website.

Mail merge is to be used to personalise the letter for each recipient.

- (a) A wizard is going to be used to create the mail merge.

Describe **two** advantages of using the wizard to create the mail merge.

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- (b) Identify the steps that must be completed to create the mail merge.

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8 The committee is holding a meeting for all residents. At the meeting a presentation will be given.

(a) Compare the use of a computer and projector with printed acetate and overhead projector (OHP) to deliver the presentation.

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(b) The presentation can be hierarchical or non linear.

(i) Describe the term non linear presentation.

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(ii) Give **two** advantages of the presentation being non linear.

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(c) The presentation could use automatic or manual transition.

Describe **two** advantages of using manual transition for the village hall presentation.

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PLEASE TURN OVER FOR THE NEXT QUESTION

9 The data stored on the committee's computer has been stolen.

(a) The Computer Misuse Act (1990) (CMA) can be used to prosecute the thief.

Identify **three** provisions of the CMA and for each, give an example of an action that could be prosecuted under that provision.

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(b) Describe **two** security methods the committee could implement to prevent data being stolen from its computer in the future.

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10 Identify **two** safety problems relating to the use of ICT.

For each safety problem give an appropriate different solution.

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Solution

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Solution

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PLEASE TURN OVER FOR THE LAST QUESTION

11 The committee want to use the hall as a cinema and entertainment centre.

Discuss the impact of ICT on cinema and entertainment systems that could be used in the hall.

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

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