

ADVANCED GCE
APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

G055

Unit 16: Networking Solutions

WEDNESDAY 23 JANUARY 2008

Morning

Time: 1 hour 30 minutes

Candidates answer on the question paper.

Additional materials (enclosed): Instructions for Candidates G055/IC

Additional materials (required):
 Candidate's pre-prepared materials



Candidate Forename

Candidate Surname

Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Do **not** write outside the box bordering each page.
- Write your answer to each question in the space provided.
- Attach your pre-prepared material for tasks 1-3.

INFORMATION FOR CANDIDATES

- The number of marks for each question 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.

FOR EXAMINER'S USE

Task 2	
Task 3	
1	
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7	
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10	
11	
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13	
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15	
TOTAL	

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Section A

This section relates to the case study and tasks on Intrepid Explorations Café (IEC).

1 Describe **one** advantage and **one** disadvantage to IEC of installing a network.

Advantage

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.....

.....

Disadvantage

.....

.....

..... [4]

2 IEC can choose to install a peer-to-peer network or a client-server network.

(a) Identify **three** features of a client-server network.

Feature 1

.....

Feature 2

.....

Feature 3

..... [3]

(b) Describe **two** factors that could lead IEC to consider a client-server network.

Factor 1

.....

.....

.....

Factor 2

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.....

..... [4]

3 The new network could be based on a logical ring topology.

(a) Draw and label a diagram to show a logical ring.

[4]

(b) Describe the operation of a logical ring.

.....

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.....

..... [3]

(c) Describe **one disadvantage** of using a logical ring.

.....

.....

.....

..... [2]

4 IEC could use STP cables to connect their network.

(a) Identify the connector that would be used with this cable.

..... [1]

(b) Explain why STP cable is suitable for the IEC network.

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..... [4]

(c) State **one disadvantage** of using STP cable for the IEC network.

..... [1]

5 IEC's network will need some new hardware.

Describe the function of each of the following types of hardware.

(a) active hub

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

(b) file server

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

6 Identify and describe **two** types of software that could be used to send and receive emails on the IEC network.

Type 1

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Type 2

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..... [6]

7 Identify and describe **one** protocol that could be used on the IEC network.

.....

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..... [3]

8 IEC could make use of problem logs to help them to diagnose and solve problems more easily.
Describe how IEC could file their logs so that they can be used effectively to solve future problems.

.....

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.....

..... [2]

9 IEC would like to set up an extranet for registered customers to use email.

(a) Identify **two** other services that could be provided to these customers through the extranet.

Service 1

.....

Service 2

..... [2]

(b) Describe the hardware and software a customer would need to access the extranet.

Hardware

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.....

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.....

Software

.....

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..... [4]

(c) Evaluate the use of an extranet by IEC.

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..... [3]

Section B

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

10 A variety of software is used on a wide area network (WAN).

Identify the software required for

(i) file transfer

.....
..... [1]

(ii) web page design

.....
..... [1]

(iii) viewing web pages.

.....
..... [1]

11 Describe the function of a server in a client-server network.

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..... [2]

12 Explain how an organisation might use the Internet for web-based marketing.

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..... [4]

13 URLs are used to request web pages.

(a) Give an example of a URL.

..... [1]

(b) Describe how a URL is interpreted.

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..... [4]

14 Identify **two** safety considerations that must be taken when installing a network to ensure the safety of its users.

Consideration 1

.....

Consideration 2

..... [2]

15 Describe **two** measures that can be taken to ensure that data remains secure.

Measure 1

.....

.....

.....

Measure 2

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..... [4]

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