

# ADVANCED GCE G055

#### APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY

Unit 16: Networking Solutions

**THURSDAY 5 JUNE 2008** 

Afternoon

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.
- Write your answer to each question in the space provided.
- Attach your pre-prepared material for tasks 1-3.

#### INFORMATION FOR CANDIDATES

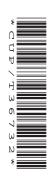
- The number of marks for each question is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is 100.
- No marks will be awarded for using brand names of software packages or hardware.

FUR EXAMI	NEK 3 USE
Task 2	
Task 3	
1	
2	
3	
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5	
6	
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9	
10	
11	
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14	
TOTAL	

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### **Section A**

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

1	Describe <b>one</b> advantage and <b>one</b> disadvantage to IEC's customers of installing a network with access to the Internet.
	Advantage
	Disadvantage
	[4]

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IEC	can choose to install a peer-to-peer network or a client-server network.
(a)	Identify three features of a peer-to-peer network.
	Feature 1
	Feature 2
	Feature 3
	[3
(b)	Describe <b>two</b> factors that could lead IEC to consider a peer-to-peer network.
	Factor 1
	Factor 2
	[4

The new network could be based on a logical star topology.(a) Draw and label a diagram to show a logical star.

(b)	Describe the operation of a logical star.
	[3]
(c)	Describe <b>one disadvantage</b> of using a logical star.

[4]

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IEC could choose to install a wireless network.

	Item 1	
	Item 2	
		[4
(b)	Explain why a wireless network could be the most suitable for IEC.	
IEC		
	c's network will need some new hardware.	
Des	c's network will need some new hardware.  Scribe the function of each of the following types of hardware.	
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Des	S's network will need some new hardware.  scribe the function of each of the following types of hardware.  proxy server	[3
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tem 2					
EC will tra	ansfer its web pag	ges from its netv	vork to the ISP's	s server.	
	d describe a prot				

When data is transferred across a network a communications log is kept and is referred to when

solv	ving problems.	
(a)	Identify <b>one</b> item of data that could be stored in a communications log.	
		[1]
(b)	Describe how a communications log could be used to help solve common data transproblems.	sfer
		[ <i>1</i> ]

8

Cus	stomers at IEC will be able to access the Internet.	
(a)	Identify three Internet services that customers will have available to them.	
	Service 1	
	Service 2	
	Service 3	
	[	3]
(b)	Evaluate the provision of these services by IEC.	
	Evaluate the consequences to IEC of providing these services.	
	[	3

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### **Section B**

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

10	A co	ompa	any develops its own website, which will be hosted by an ISP.	
	(a)	Des	scribe the steps the company will take to upload their website to the ISP's server.	
				[4]
	(b)	(i)	Define the term 'bandwidth'.	
				[1]
		(ii)	Describe how bandwidth affects the time it takes for pages to be uploaded.	
				[2]
		(iii)	State the calculation used to estimate the time to transfer a file.	
				[1]

11	Describe the function of a client in a client-server network.
	[2]
12	Describe the process of posting a message on a bulletin board.
	[4]
13	Identify <b>two</b> health considerations that should be taken into account when designing workstations for network users.
	Consideration 1
	Consideration 2
	[2]

[Please turn over for question 14]

4	Describe <b>two</b> measures that can be taken to protect computer equipment from theft.
	Measure 1
	Measure 2
	[4]

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