

Tuesday 12 June 2012 – Afternoon

**A2 GCE
APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY**

G055/01 Networking Solutions

Candidates answer on the Question Paper.

OCR supplied materials:

- Instructions for Candidates G055/01/IC (inserted)

Other materials required:

- Candidate's pre-prepared materials for pre-release tasks 1, 2 and 3.

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. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- 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).
- Attach your pre-prepared materials for tasks 1–3.
- 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 **100**.
- No marks will be given for using brand names of software packages or hardware.
- The quality of your written communication will be assessed through Q5 and Q7.
- This document consists of **12** pages. Any blank pages are indicated.

For Examiner's Use		Max
Task 2		21
Task 3		9
1		6
2		8
3		5
4		5
5		9
6		8
7		9
8		2
9		3
10		7
11		3
12		5
Total		100

2 All employees of Green Toes will need access to the internet.

(a) Describe how a proxy server can be used to manage employees' access to the internet.

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

(b) Explain how a router can be used to provide access to the internet for the employees of Green Toes.

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

3 A possible topology for the network at Green Toes is a logical mesh network as shown in Fig. 1.

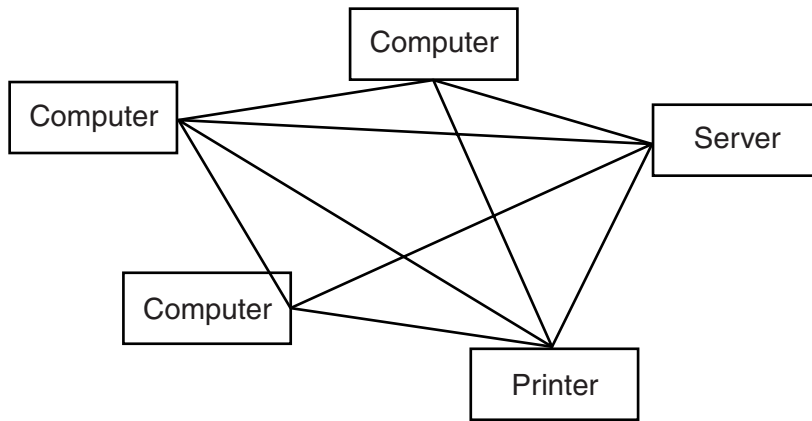


Fig. 1

(a) Describe **one** benefit to Green Toes of installing a logical mesh network.

.....

.....

.....

..... [2]

(b) Mr Greensdale has decided **not** to use a logical mesh network.

Explain **one** possible reason for this.

.....

.....

.....

.....

.....

.....

..... [3]

4 A network operating system will be needed on the file server and on all computers in the Green Toes network.

(a) Describe **one** function of the network operating system on the company's file server.

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

(b) The Green Toes database is stored on the file server. The computers used by the database staff to populate the database will also require a network operating system.

Explain **one** function of this network operating system.

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

6 Mr Greensdale would like to look into the possibility of introducing an extranet that can be accessed by employees and producers.

(a) Explain **one** advantage to employees of introducing an extranet.

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

(b) Explain **one** advantage to producers of introducing an extranet.

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

(c) Explain **two disadvantages** to the company of introducing an extranet.

1

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

2

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

Section B

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

8 Describe a situation where the use of a dial-up internet connection would be appropriate.

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

9 In order to access the World Wide Web a computer will have browser software.

What does browser software do?

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

10

10 A company has 15 offices in one large building and employs a total of 300 office staff, each with a dedicated computer. A new company-wide network is needed and the company's directors are considering a WLAN.

(a) Define the term WLAN (Wireless Local Area Network)

..... [1]

(b) Fill in the table to identify the **two** main components of a WLAN. For each, describe **one** of its functions.

Component	Function
1	
2	

[6]

11 NetBEUI or TCP/IP protocols can be used within a LAN.

Recommend the **most** suitable of these protocols for a LAN connected to the internet and justify your choice.

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

12 When an organisation wants to connect its network to the internet it will first find an ISP with which it will set up an internet connection.

Explain the process of setting up an internet connection between the organisation and its ISP.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [5]

END OF QUESTION PAPER

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) 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.