



Rewarding Learning

ADVANCED
General Certificate of Education
January 2014

Centre Number

71	
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Candidate Number

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Applied Information and Communication Technology

Assessment Unit A2 13

assessing

Unit 13: Networking and Communications

[A6J71]



TUESDAY 28 JANUARY, MORNING

TIME

1 hour 30 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.
Answer **all thirteen** questions on the paper in the spaces provided.

INFORMATION FOR CANDIDATES

The total mark for this paper is 100.
Quality of written communication will be assessed in questions **6, 8, 10** and **12**.
Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

ADVICE TO CANDIDATES

You are advised to take account of the marks for each part question in allocating the available examination time.

For Examiner's use only			
Question	Marks Available	Marks	Remark
1	4		
2	6		
3	6		
4	8		
5	7		
6	10		
7	16		
8	10		
9	4		
10	10		
11	5		
12	10		
13	4		
Total	100		



1 In homes with wireless computer networks there are advantages for various family members. Describe **two** advantages a home wireless network would provide for the home user.

Advantage 1 _____

Advantage 2 _____

_____ [4]

2 Each of the following statements about network cards is either TRUE or FALSE. Insert the word TRUE or FALSE in the space opposite each statement about network cards.

It allows data to be passed from node to node.	
It works as a router.	
It needs to be inserted directly onto the computer's motherboard.	
It holds an address called the Media Access Control Address (MAC).	
It creates an internet user's IP address.	
It is needed when setting up a peer to peer network.	

[6]

Examiner Only	
Marks	Remark

3 **Asynchronous** data transmission between two devices involves processes known as **handshaking** and **parity checking**.

Explain the meaning of the following terms:

(a) Asynchronous

(b) Handshaking

(c) Parity checking

[6]

Examiner Only	
Marks	Remark

- 5 In the following table there are statements that should appear in a company's acceptable use policy (AUP). These govern the use of networks and the Internet. Insert a tick (✓) beside each statement which should appear in the AUP.

A statement about restrictions on how to use the Internet for personal purposes.	
A request that unsuitable material should not be accessed.	
Obligations of users regarding the Computer Misuse Act.	
A statement about the monitoring of staff Internet usage.	
A reminder that all material accessed on the Internet is available for employees to download.	
A statement that the normal rules of copyright do not apply to Internet usage in the company.	
A statement telling users the company's procedure for passwords.	
A statement of the legal implications of improper Internet use.	
A statement of Internet policy that an employee must accept before being allowed to use the Internet.	
The roles of the senior managers in the organisation with regard to employees' work hours and duties.	

[7]

Examiner Only	
Marks	Remark

7 A person has set up an e-mail account and is accessing the account using a handheld device. The settings on the device are shown below.

User name	Password
user@email.com	*****
POP3 server	SMTP server
pop3.email.com	smtp.email.com
port	port
110	25
Security type	Security type
SSL	TLS

Explain the meaning and purpose of the following:

(a) User name

[2]

(b) Password

[2]

Examiner Only	
Marks	Remark

- 9 The following statements about static and dynamic addressing are either true or false. Insert the word TRUE or FALSE beside each statement below.

STATIC ADDRESSING	
allocates a permanent IP address which allows a device connection to the Internet.	
of devices ensures safety from attack from outside an organisation.	
DYNAMIC ADDRESSING	
is allocated on demand.	
can be used with NAT to ensure that devices can only be seen within an organisation.	

[4]

Examiner Only	
Marks	Remark

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(Questions continue overleaf)

[10]

Examiner Only	
Marks	Remark

11 When an employee searches for a web page on the Internet a series of steps must be followed in order to retrieve the requested web page.

Insert the correct words or phrases into the following sentences from the list below. Each word or phrase can only be used once.

DNS server browser manage opens locate
views e-mail requested individual application

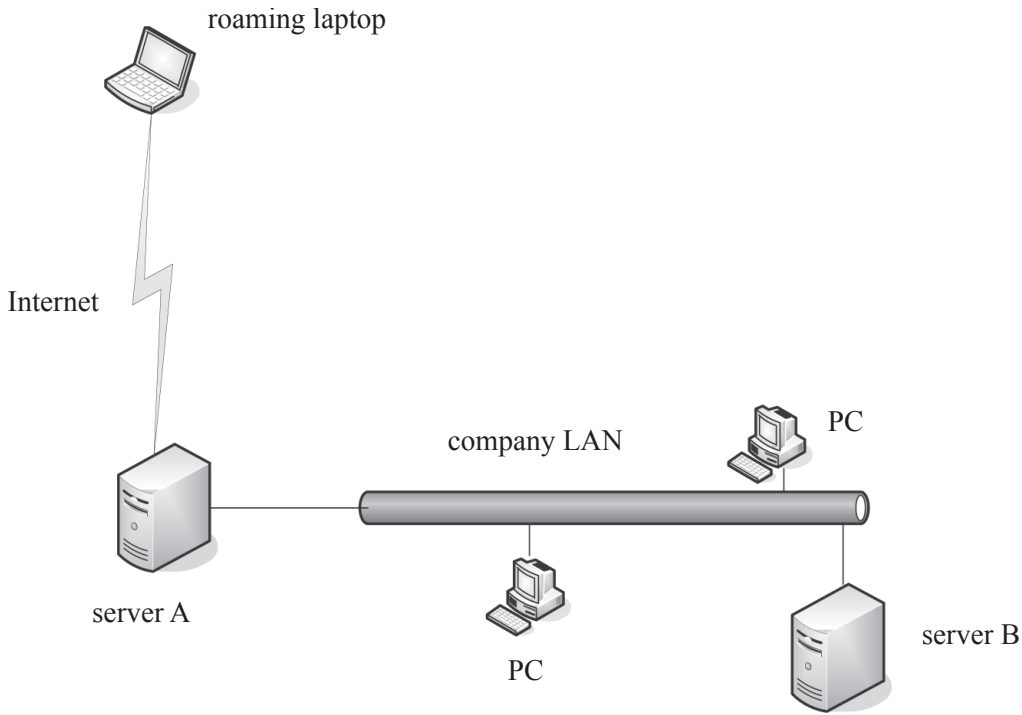
The user's _____ requests the web page address (URL). The request is passed to the _____ which will _____ the IP address using Address Resolution Protocol (ARP). The IP address is sent back to the user's browser. The user's browser requests the web page at this IP address. The _____ page is returned to the browser. The user _____ the web page. [5]

Examiner Only	
Marks	Remark

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(Questions continue overleaf)

13 Employees of a company travel between offices using roaming laptops to access the company's Local Area Network through the Internet. This is possible by the creation of a Virtual Private Network. With reference to the diagram below explain how this works.

Examiner Only	
Marks	Remark



[4]

THIS IS THE END OF THE QUESTION PAPER

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