

Topic: 1.2.2 IP Addressing

Computer Science(9608)

Oct/Nov 2015. P11/P13

3 (a) The table shows four statements about IP addresses.

Tick (✓) to show which of the statements are true.

Statement	True (✓)
The IP address consists of any number of digits separated by single dots (.)	
Each number in an IP address can range from 0 to 255	
IP addresses are used to ensure that messages and data reach their correct destinations	
Public IP addresses are considered to be more secure than private IP addresses	

[2]

(b) Consider the URL:

<http://cie.org.uk/computerscience.html>

(i) Give the meaning of the following parts of the URL.

http

cie.org.uk

computerscience.html

[3]

(ii) Sometimes the URL contains the characters %20 and ?.

Describe the function of these characters.

[2]

Oct/Nov 2015. P12

9 (a) An IP address has the following value:

11.64.255.90

(i) Write the above IP address in hexadecimal.

[4]

(ii) Explain the format of an IP address.

[2]

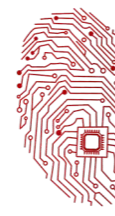
(b) Study the following sentence:

“When a user enters a URL into their web browser, the DNS service locates the required resource.”

Explain how a URL and DNS are used to locate a resource.

[4]





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May/ June 2016. P11/ P12

7 Access to World Wide Web content uses IP addressing.

(a) State what IP stands for.

[1]

(b) The following table shows four possible IP addresses.

Indicate for each IP address whether it is valid or invalid and give a reason.

Address	Denary / Hexadecimal	Valid or Invalid	Reason
3.2A.6AA.BBBB	Hexadecimal		
2.0.255.1	Denary		
6.0.257.6	Denary		
A.78.F4.J8	Hexadecimal		

[4]

(c) Describe **two** differences between public and private IP addresses.

[2]

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6 (d) A device needs an IP address to connect to the Internet. IPv4 is the more common type of IP address. Describe, using an example, the format of an IPv4 address.

[3]

(e) A computer user keys in the Uniform Resource Locator (URL) of a web page into a web browser. Describe how the browser uses the Domain Name Service (DNS) to display the web page.

[4]

