

5. The Internet and Its Uses

5.1 The internet and the world wide web

Marking scheme

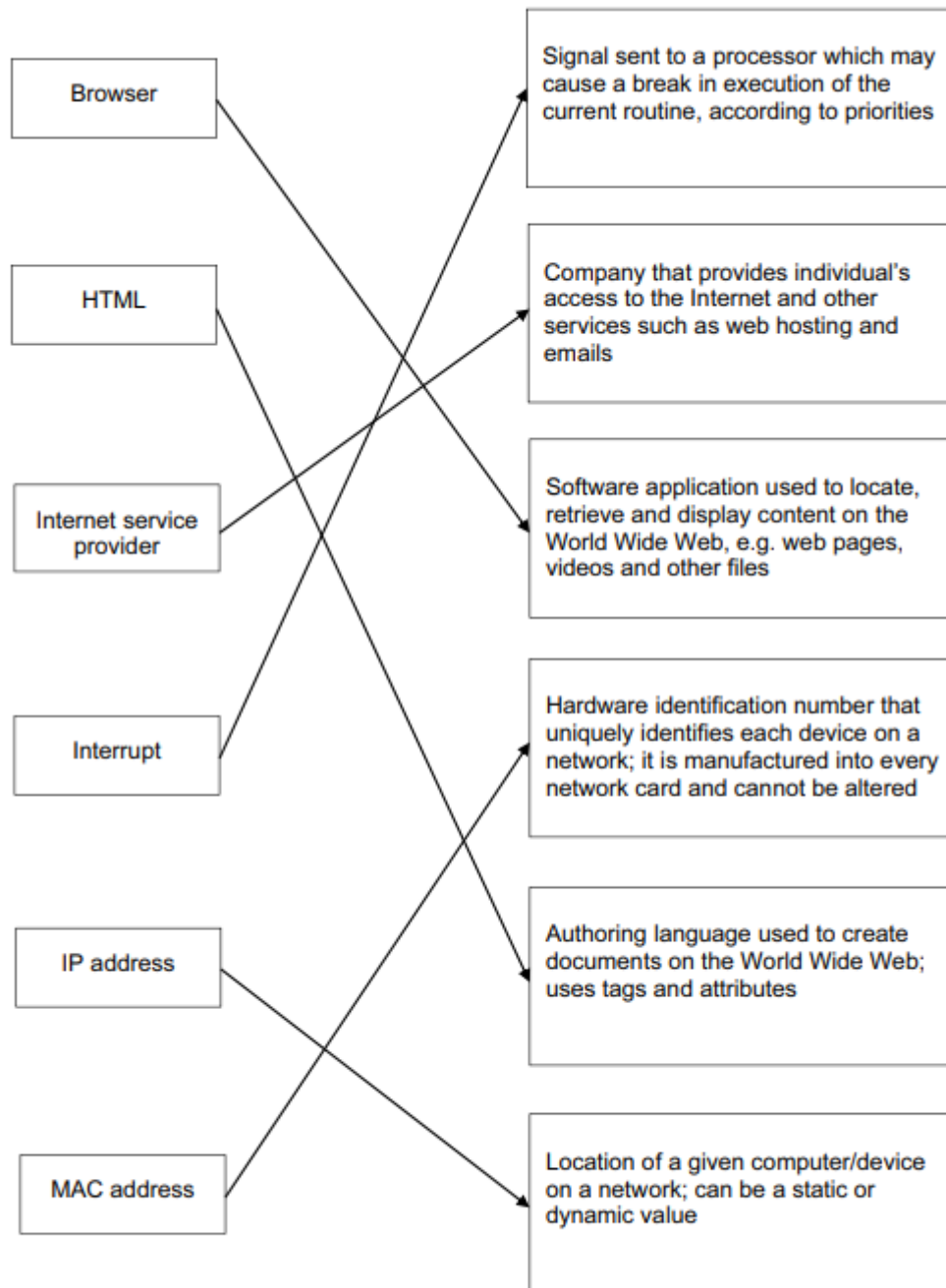
Q1)

(a)

Statement	True	False
Cookies can destroy or modify data in a computer without the user's knowledge		✓
Cookies generate website pop-ups		✓
Cookies allow a website to detect whether a viewer has viewed specific web pages	✓	

[3]

Q2)



[5]

Q3)

(a) Any **three** from:

- hypertext mark-up language
- used to create/develop/author webpages
- translated by a browser to display webpages
- uses (opening and closing) tags to display/format content

[3]

(b) **Structure:**

- instructs how the layout of the content is displayed

Presentation:

- instructs how the content will be formatted e.g. colour/style/CSS

[2]

(c) Any **three** from:

- displays web page
- interprets/translates the HTML document
- interprets/translates embedded scripting, for example JavaScript
- provides functions, such as bookmarks and history
- identifies protocols, such as https, SSL

[3]

Q4)

Question	Answer	Marks
(c)	Two from: Displays web pages ... by rendering HTML	2
(d)	Any three from: e.g. <ul style="list-style-type: none"> • Storing bookmarks/favourites • Recording user history • Allowing use of multiple tabs • Providing navigation tools // by example • Providing an address bar • Managing protocols // by example // checking digital certificate • Send URL to DNS • Sends a request to the IP address/web server (to obtain the contents of a webpage) • Runs active script/JavaScript/client-side script • Allows files to be downloaded from website/internet 	3
(e)	Any four from: <ul style="list-style-type: none"> • Session cookies are stored in memory/RAM • ... whereas persistent cookies are stored on the hard drive/secondary storage • When the browser is closed a session cookie is lost • ... whereas a persistent cookie is not lost • ... until deleted by the user/they expire 	4

Q5)

Question	Answer	Marks
6(a)	One mark for each correct term. <ul style="list-style-type: none"> • Text • Web browser // web server • Web server // web browser • Session • Session • Persistent 	6
6(b)	Any three from: e.g. <ul style="list-style-type: none"> • Saving personal details • Storing login details • Tracking user preferences • Holding items in an online shopping cart 	3

Q6)

Question	Answer	Marks														
	<table><tr><th>Term</th><th>Description</th></tr><tr><td>world wide web</td><td>the collective name for all the web pages available</td></tr><tr><td>cookie</td><td>a small text file, stored by the web browser, that can store a user's personal data</td></tr><tr><td>uniform resource locator (URL)</td><td>the text-based address for a website // It is made up of the protocol, domain name and filename/folder name</td></tr><tr><td>web server</td><td>Stores web pages // receives requests from clients and returns requested web page</td></tr><tr><td>hypertext markup language // HTML</td><td>the language used to create a website. Example tags are <head> and <body></td></tr><tr><td>hypertext transfer protocol // HTTP</td><td>a protocol that is used to request and send web pages</td></tr></table>	Term	Description	world wide web	the collective name for all the web pages available	cookie	a small text file, stored by the web browser, that can store a user's personal data	uniform resource locator (URL)	the text-based address for a website // It is made up of the protocol, domain name and filename/folder name	web server	Stores web pages // receives requests from clients and returns requested web page	hypertext markup language // HTML	the language used to create a website. Example tags are <head> and <body>	hypertext transfer protocol // HTTP	a protocol that is used to request and send web pages	6
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Q7)

Question	Answer	Marks
(a)	Any two from: – Display web pages – ... by rendering HTML	2
(b)	– Storing cookies	1
(c)	Any one from: – Storing bookmarks – Storing favourites	1
(d)	Any one from: – It encrypts it – Uses digital certificates	1

Q8)

Question	Answer	Marks
(a)	Any two from: • The internet is the infrastructure • The world wide web is a collection of web pages	2
(b)	Protocol Domain name File name // web page name	3
(c)	Any three from: Example: • Displays a web page • Storing bookmarks/favourites • Recording user history • Allowing use of multiple tabs • Storing cookies • Providing navigation tools • Can set a home page	3

Q9)

Question	Answer	Marks
(a)	A text-based address for a website/web page	1
(b)	Any two from: <ul style="list-style-type: none"> • Protocol • Domain name • File name 	2
(c)	Web browser	1

Question	Answer	Marks
(d)	<p>One mark for each correct part of the diagram.</p> <p>The diagram shows:</p> <ul style="list-style-type: none"> • URL sent from web browser to the DNS • DNS finding matching IP address • If it cannot find the URL, it is sent to the next DNS (until found) • IP address returned to web browser • Request sent from web browser to web server (for web page) • Web page/HTML files sent from web server to web browser • Web browser rendering HTML <p>For example:</p> <pre> graph LR WB[Web browser] -- "URL sent to DNS" --> DNS1[DNS] DNS1 -- "IP address returned" --> WB DNS1 -- "Sent to next DNS if URL not found" --> DNS2[DNS] WB -- "Request sent" --> WS[Web server] WS -- "Web pages sent" --> WB </pre>	5

Question	Answer	Marks
(e)	<p>One mark for each correct term in the correct order:</p> <ul style="list-style-type: none"> • Web browser • Web server • Web server • Web browser • Encrypted 	5

Q10)

Question	Answer	Marks
	<p>One mark for each correct term or description in the correct place.</p> <p>Term</p> <ul style="list-style-type: none"> • World wide web // WWW • IP (address) • Domain name server // DNS • Proxy server <p>Description</p> <ul style="list-style-type: none"> • (Web browser) Software/application that allows users to view/access web pages by rendering HTML • (Hacking) Gaining unauthorised access to a computer/system 	6

Q11)

Question	Answer	Marks
(a)	<p>One mark for each correct term in the correct order:</p> <ul style="list-style-type: none"> • web browser • session • temporary • web browser // session • persistent • permanent • expire 	7
(b)	<p>Any three from:</p> <p>For example:</p> <ul style="list-style-type: none"> • User preferences // by example • Login details • Payment details • User's personal details e.g. address • Contents of a shopping cart • Targeted advertising 	3

