CAMBRIDGE IGCSE (0478)

Module F: The internet

Workbooklet · 5 parts · 102 marks

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MODULE F THE INTERNET · F1

The internet vs the world wide web

Original practice questions · 20 marks · ~25 minutes · Cambridge 0478 syllabus 5.1.1

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **20 marks**.

1

Total: 3 marks

(a) Tick (✓) **one** box to show which statement describes the world wide web. **[1]**

Statement	Tick (✓)
The cables, routers and other hardware that connect networks around the world	
The collection of websites and web pages that are accessed using the internet	
The protocol that is used to send web pages from a web server to a web browser	
The software that a user runs to display web pages	

(b) State what is meant by the **internet**. **[2]**

2

Total: 6 marks

Tick (✓) **one** box in each row to show whether each item is part of the internet or part of the world wide web. **[6]**

Item	Internet	World wide web
The fibre-optic cables laid under the sea between continents		
The pages of an online furniture shop's website		
The routers that pass data from one network to another network		
A web page of train times, viewed in a web browser		
The wireless and satellite links that carry data between networks		
The text and images on the home page of a recipe website		

3 **Total: 4 marks**

Tick (✓) **one** box in each row to show whether each statement is true or false. **[4]**

Statement	True	False
The world wide web is accessed using the internet.		
"The internet" and "the world wide web" are two names for the same thing.		
A website is part of the infrastructure of the internet.		
Users in other countries could not access a website's pages without the internet.		

4 **Total: 5 marks**

A hotel manager writes this sentence in a guide for new staff:
"The world wide web is the network of cables and routers that links our hotel's computers to the rest of the world."
Guests book their rooms on the hotel's website.

(a) Identify the term the manager should have used instead of "world wide web". **[1]**

(b) Explain the difference between the internet and the world wide web. **[4]**
Use the hotel and its website in your answer.

5 **Total: 2 marks**

A user's laptop loses its connection to the internet. The user cannot open any pages on the world wide web. The user can still open a spreadsheet that is saved on the laptop's own storage.

(a) Explain why the user can open the spreadsheet but cannot open any web pages. **[2]**

Total for this worksheet: 20 marks

MODULE F THE INTERNET · F2

URLs, DNS and how a web page reaches your screen

Original practice questions · 21 marks · ~25 minutes · Cambridge 0478 syllabus 5.1.2, 5.1.5

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **21 marks**. All web addresses and organisations on this sheet are made up.

1

Total: 6 marks

(a) State what is meant by a uniform resource locator (URL). **[2]**

A museum and a campsite each have a website. These are two of their URLs:

```
https://www.marshmuseum.example/opening-times.html
https://www.lakeviewcampsite.example/booking.html
```

(b) Each row of the table shows one part taken from these URLs. Tick (✓) **one** box in each row to show which part of a URL it is. **[4]**

Part of a URL	Protocol	Domain name	Web page / file name
www.lakeviewcampsite.example			
booking.html			
https			
opening-times.html			

2

Total: 5 marks

(a) Tick (✓) **one** box in each row to show which of these carries out each task when a web page is located, retrieved and displayed. **[5]**

Task	Web browser	Domain name server (DNS)	Web server
Stores the web pages for a website			
Holds a database of domain names and their matching IP addresses			
Sends a request for the web page to the web server			
Sends the HTML files for the requested page to the user's device			
Renders the HTML so the page can be seen			

3

Total: 5 marks

A hotel guest wants to check the opening times of the museum. The guest types **https://www.marshmuseum.example/opening-times.html** into the address bar of a web browser on a tablet computer.

(a) The statements **P** to **U** describe how the web page is located, retrieved and displayed. They are in the wrong order. Write the letters in the table to show the correct order. The first one has been done for you. **[5]**

Letter	Statement
P	The DNS finds the IP address that matches the domain name and sends it back to the web browser.
Q	The web page is displayed on the tablet computer's screen.
R	The web browser sends the domain name from the URL to the DNS.
S	The web server finds the web page and sends its HTML files back to the web browser.
T	The guest types the URL into the address bar of the web browser.
U	The web browser uses the IP address to send a request for the web page to the web server.

Order	1	2	3	4	5	6
Letter	T					

4 **Total: 2 marks**

(a) Explain why the web browser needs the IP address of the web server before it can retrieve the museum's web page. **[2]**

5 **Total: 3 marks**

(a) Give the full name of **HTML**. **[1]**

(b) Describe the role of HTML in displaying the museum's web page on the guest's tablet computer. **[2]**

Total for this worksheet: 21 marks

MODULE F THE INTERNET · F3

Web browsers and what they do

Original practice questions · 20 marks · ~25 minutes · Cambridge 0478 syllabus 5.1.4

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **20 marks**.

1

Total: 2 marks

(a) Tick (✓) **one** box to show the main purpose of a web browser. **[1]**

Purpose	Tick (✓)
To convert a domain name into an IP address	
To render HTML and display web pages	
To store the files of a website so other devices can request them	
To give a device a unique address on a network	

(b) Identify the language that a web browser renders to display a web page. **[1]**

2

Total: 4 marks

(a) Tick (✓) **one** box in each row to show whether each statement about web browsers is true or false. **[4]**

Statement	True	False
A bookmark stores the URL of a web page so the user can go back to it quickly		
Multiple tabs allow several web pages to be open in one browser window		
The web browser stores cookies on the web server		
A web browser is a hardware device that connects a computer to the internet		

3 **Total: 5 marks**

A freelance translator works from home. The translator uses a web browser all day to research words and to keep in touch with clients.

(a) Identify the function of the web browser that helps the translator in each situation. **[5]**

Situation	Function of the web browser
The translator saved an online dictionary page earlier, and now opens it several times a day without typing its URL.	
The translator wants to find a page about legal terms that was visited yesterday but was not saved.	
The translator has the dictionary, a client's website and a glossary open in the same window and switches between them.	
A client has just changed a page, so the translator loads the same page again to see the changes.	
A job website keeps the translator logged in between visits.	

4 **Total: 3 marks**

A web browser provides navigation tools and an address bar.

(a) Give **two** navigation tools a web browser provides, other than reloading (refreshing) a page. **[2]**

1

2

(b) State **one** use of the address bar. **[1]**

5 **Total: 2 marks**

A web browser can store bookmarks and it can record the user's history.

(a) Describe **one** difference between a bookmark and the user's history. **[2]**

6 **Total: 4 marks**

A garden centre writes the pages of its website in HTML and stores them on a web server. A customer opens the opening-times page in a web browser. The customer sees headings, text, a photo and links, not the HTML.

(a) Explain the role of the web browser in showing the page to the customer. **[4]**

Total for this worksheet: 20 marks

MODULE F THE INTERNET · F4

Cookies: session vs persistent

Original practice questions · 21 marks · ~25 minutes · Cambridge 0478 syllabus 5.1.6

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **21 marks**.

1

Total: 3 marks

(a) Describe what is meant by a **cookie**. **[2]**

(b) Identify the software on a user's computer that stores and manages cookies. **[1]**

2

Total: 4 marks

(a) Tick (✓) **one** box in each row to show whether each statement is true or false. **[4]**

Statement	True	False
A session cookie is deleted when the web browser is closed		
A persistent cookie is deleted when the user moves to a different web page		
A persistent cookie can stay on the device until its expiry date		
A session cookie is kept on secondary storage between visits to a website		

3 **Total: 7 marks**

A city bike-hire company has a website. Customers can create an account, choose bikes and equipment, and pay online. The website uses cookies.

(a) Identify the function of the cookie in each situation in the table. Each situation shows a different function. **[4]**

Situation	Function of the cookie
When a customer returns, the website appears in the language and text size they chose last time	
A customer's name, address and phone number are filled in automatically on the booking form	
Two bikes and a helmet that a customer has chosen stay in their basket while they look at other pages	
A customer does not have to enter their username and password when they come back the next day	

(b) Tick (✓) **one** box in each row to show which type of cookie is needed. **[3]**

Description	Session cookie	Persistent cookie
The customer's chosen language is remembered when they visit again next month		
The items in the basket are removed when the customer closes the web browser		
The customer stays logged in for 14 days after ticking "Keep me logged in"		

4 **Total: 4 marks**

A hotel has a computer in its lobby that any guest can use. A guest uses this computer to log in to their account on a travel booking website. The website can store the guest's login using either a session cookie or a persistent cookie.

(a) Explain why a **session** cookie is more suitable than a **persistent** cookie for storing the login on this computer. **[4]**

5 **Total: 3 marks**

A news website lets each reader choose which topics appear first on its home page, for example sport and weather.

(a) Describe how the website can use a persistent cookie so that a reader sees their chosen topics first when they visit again a week later. **[3]**

Total for this worksheet: 21 marks

MODULE F THE INTERNET · F5

Digital currency and blockchain

Original practice questions · 20 marks · ~25 minutes · Cambridge 0478 syllabus 5.2.1, 5.2.2

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **20 marks**.

1

Total: 5 marks

(a) Tick (✓) **one** box in each row to show whether each statement is true or false. **[5]**

Statement	True	False
A digital currency can be used to pay for goods and services		
A payment in a digital currency is made by handing over physical coins or notes		
A blockchain stores a time-stamped series of records		
Once a transaction is stored in a blockchain, it can be edited to correct a mistake		
Each new block in a blockchain is linked to the block before it		

2

Total: 3 marks

A workshop makes wooden tables and sells them on its website. Customers can choose to pay in a digital currency.

(a) Define the term **digital currency**. **[1]**

(b) Describe how a customer uses the digital currency to pay the workshop for a table. **[2]**

3 **Total: 6 marks**

A delivery firm pays its drivers in a digital currency. Every payment the firm makes is tracked using a blockchain. Part of the blockchain is shown.



(Block 3 is the newest block)

(a) Identify **two** items of data that are stored in each block. **[2]**

(b) The firm makes a new payment to one of its drivers. Describe how this payment is recorded in the blockchain. **[4]**

4 **Total: 4 marks**

A driver says that a payment recorded in Block 2 was for less than the amount they were owed. The driver asks the firm to change the amount stored in Block 2.

(a) Explain why the amount stored in Block 2 cannot be altered. **[3]**

(b) Suggest how the firm could give the driver the rest of the money they are owed. **[1]**

5 **Total: 2 marks**

The firm's accountant needs to check all the payments the firm made to drivers in October 2026.

(a) Explain how the blockchain helps the accountant to do this. **[2]**

Total for this worksheet: 20 marks