MODULE E NETWORKS · E9

Protocols and standards: TCP/IP, HTTP, HTTPS and FTP

Original practice questions · 21 marks · ~25 minutes · OCR J277 spec 1.3.2

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 **21 marks**.

1

Total: 3 marks

(a) State what is meant by a **protocol**. **[1]**

An office buys a network printer from one manufacturer. The office's laptops are made by a different manufacturer, but they can all print to it.

(b) Explain how **standards** make this possible. **[2]**

2

Total: 4 marks

A regional museum uses the internet for several tasks.

(a) Complete the table by writing the **most suitable** protocol for each task. Choose from: **TCP/IP**, **HTTP**, **HTTPS**, **FTP**. Each protocol may be used once, more than once or not at all. **[4]**

Task	Protocol
A web designer sends a folder of new web page files from their computer to the museum's web server	
A visitor enters their card details to pay for exhibition tickets on the museum's website	
A visitor's browser requests the museum's public page of opening times	
Data is split into numbered packets, given addresses and routed across the internet	

3 **Total: 4 marks**

A large image is sent from a web server to a computer across the internet.

(a) Describe how **TCP/IP** is used to send the image and make sure it arrives correctly. **[4]**

4 **Total: 4 marks**

A garden centre has a website that uses HTTP. It is adding a page where customers log in with a username and password to see their orders.

(a) Explain why the log-in page should use HTTPS instead of HTTP. **[3]**

(b) State **one** way a customer can tell that a web page is using HTTPS. **[1]**

5 Total: 3 marks

(a) Describe what happens, using HTTP, when a web browser opens a web page. **[2]**

(b) State the purpose of **FTP**. **[1]**

6 Total: 3 marks

(a) Tick (✓) **one** box in each row to show whether each statement is true or false. **[3]**

Statement	True	False
Different protocols are used for different purposes		
HTTPS stops data from being intercepted		
HTTP and HTTPS are both used to request and send web pages		

Total for this worksheet: 21 marks