Question 1

a

```
<p>This is a list of bullet points:</p>
<ul>
    <li>first bullet</li>
    <li>second bullet</li>
    <li>third bullet</li>
</ul>
<p>This is a list of numbered points:</p>
<ol>
    <li>first item</li>
    <li>second item</li>
    <li>third item</li>
</ol>
```

b

Empty HTML element

Empty elements do not have a separate closing tag. E.g.: <br />, <hr />

c

Block element vs inline element?

Block Elements start on a new line, and are preceded and followed by a blank line. E.g.: <h1>, <p>.

Inline elements continue on the same line. E.g.: <strong>, <span>

d

What image format would be the most appropriate for these? GIF/PNG/JPEG/SVG

The design of the British flag, or the logo of McDonalds, when the purpose is to allow resizing the images without quality loss

SVG

A portrait of Her Majesty the Queen, or a photo of Cardiff Castle, when the purpose is to reprint a natural photographic image in a space efficient way

JPEG

A screenshot of an old 8-bit computer game when the purpose is to accurately represent pixel values in a space efficient way, despite the image containing sharp edges or abrupt changes of intensity

PNG

An animated emoji or an animated avatar

GIF

Question 2

a

Name		Country
Crarwyn	Jones	Wales
Leanne	Wood	
Nicola	Sturgeon	Scotland
Ruth	Davidson	

b

Using internal sheet

```
<style type="text/css">
p {
color: red
}
</style>
```

Using external sheet

```
<link rel="stylesheet" type="text/css" href="styles.css">
p {
color: red
}
```

c

Colours

#ffffff - white

#000000 - black

#0000ff - blue

#00ff00 - green

#ff0000 - red

d

<hr> - HTML5 correct, XHTML incorrect

<hr /> - HTML5 correct, XHTML correct

e

<meta http-equiv="refresh" content="5"; url="http://google.com">

Redirecting. This simulates a http header. It simulates HTTP response

Question 3

a

Three youngest navigators who serve in the rank of Ensign
SELECT name FROM Officers WHERE rank="Ensign" ORDER BY birthyear DESC LIMIT 3

Average number of missions accomplished by engineers
SELECT AVG(missions) FROM Officers WHERE position="Engineer"

Change rank to Admiral to all officers who accomplished at least 100 missions
UPDATE Officers SET rank="Admiral" WHERE missions >= 100

b
SQL Injection
SQL injection is a code injection technique that might destroy your database. SQL injection is one of the most common web hacking techniques. SQL injection is the placement of malicious code in SQL statements, via web page input.

c
Asymmetric key for encryption
Asymmetric encryption means that the two different keys are used for encryption and decryption

5 layer protocol stack model
Application
Transport
Network
Data Link
Physical

Question 4

a
B2C
Portal, Community Provider, Content Provider, Service Provider

C2C
Consumers sell products and services to each other. Ebay

B2B

Net Marketplaces, Private Industrial Networks

Transactions between businesses conducted electronically over the internet