


```
01 username = valueFromForm("username")
02 password = valueFromForm("password")
03 statement = "SELECT passwordHash FROM users WHERE name = '"
    + username + "'"
04 hashInDB = RunSQL(statement, siteDatabase)
05 if hashInDB == hash(password) then
06     //TO ADD: Generate success webpage
07 else
08     //TO ADD: Store IP address of user in database.
09 endif
```

Fig. 8.1

2. A website has the following HTML code.

```
<html>
<head>
<title>My Stamp Collection - European Stamps</title>
</head>
<body>
<h1 style="font-family:Arial; color:darkGreen">United
Kingdom</h1>
<p>These are my stamps from the uk.</p>
<!-- Code A -->

<!-- Code B -->

</body>
</html>
```

the site's owner wants to add the photo UKstamps.jpg in place of the comment

```
<!-- Code A -->
```

The site's owner notices that his site doesn't come up high in the results from a search engine that uses the PageRank algorithm. State what would affect his site's ranking.

[2]

END OF QUESTION PAPER

Question		Answer/Indicative content	Marks	Guidance
1	a	Code enclosed within #warning{...} (1) color: red; (1) font-family: monospace; (1)	3	#warning{ color: red; font-family: monospace; } Also accept hex color and RGB color notations. Don't penalise for missing semicolons. Accept a named suitable font like Courier New.
	b	Creates a textbox (1) To hold the username/which is referred to as username (1)	2	
	c	Mark Band 3–High Level (7–9 marks) The candidate demonstrates a thorough knowledge and understanding of client and server side processing. The material is generally accurate and detailed.	2 2 2	<i>Answers may include, but are not limited to, some of the points below.</i> AO1: Knowledge and Understanding

Question	Answer/Indicative content	Marks	Guidance
	<p>The candidate is able to apply their knowledge and understanding directly and consistently to the context provided. Evidence/examples will be explicitly relevant to the explanation.</p> <p>The candidate provides a thorough discussion which is well balanced. Evaluative comments are consistently relevant and well-considered.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Mark Band 2–Mid Level (4–6 marks) The candidate demonstrates reasonable knowledge and understanding of client and server side processing; the material is generally accurate but at times underdeveloped.</p> <p>The candidate is able to apply their knowledge and understanding directly to the context provided although one or two opportunities are missed. Evidence/examples are for the most part implicitly relevant to the explanation.</p> <p>The candidate provides a sound discussion, the majority of which is focused. Evaluative comments are for the most part appropriate, although one or two opportunities for development are missed.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.</i></p> <p>Mark Band 1–Low Level (1–3 marks) The candidate demonstrates a basic knowledge of client and server side processing; the material is basic and contains some inaccuracies. The candidate makes a limited attempt to apply acquired knowledge and understanding to the context provided.</p>	3	<p>Server side processing takes place on the webserver. Data is sent from the browser to the server, the server processes it and sends the output back to the browser. Client side processing takes place in the web browser.</p> <p>AO2.1: Application Client side processing doesn't require data to be sent back and forth meaning code is much more responsive. Code is visible which means it can be copied. The browser may not run the code either because it doesn't have the capability or because the user has intentionally disabled client side code. Server side processing takes away the reliance of the browser having the correct interpreter. It hides the code from the user, protecting copyright and avoiding it being amended/circumvented. Server side processing puts extra load on the server. This is at the cost of the company hosting the website.</p> <p>AO3.3: Evaluation Client side processing is best used when it's not critical code that runs. If it is critical then it should be carried out on the server. Client side processing is also best where a quick response is needed – an example being games. Server side processing is best used where it is integral that processing is carried out. It is often used for generating content. It can be used to access data including secure data. For this reason any data passed to it has to be checked carefully. With some things like validation good practice is to do both: First on the client for a quick response if there is an issue, then on the server in case the client side processing has been circumvented.</p>

Question			Answer/Indicative content	Marks	Guidance
			<p>The candidate provides a limited discussion which is narrow in focus. Judgments if made are weak and unsubstantiated. <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p> <p>0 marks No attempt to answer the question or response is not worthy of credit.</p>		
			Total	14	
2			<ul style="list-style-type: none"> – The number of sites that link to their site – The PageRank of the linking sites – The number of outward links from the site <p>(1 per –, max 2)</p>	2	
			Total	2	