

KASNEB

DICT LEVEL III

PRINCIPLES OF WEB DEVELOPMENT

TUESDAY: 24 May 2016.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question.

QUESTION ONE

- (a) Differentiate between the following as used in hypertext markup language (HTML):
- (i) Cell spacing and cell padding. (4 marks)
 - (ii) Form action attribute and form method attribute. (4 marks)
 - (iii) `` and `<div>` tags. (4 marks)
- (b) Using an appropriate example, explain three attributes that could be added to an image tag. (8 marks)
- (Total: 20 marks)**

QUESTION TWO

- (a) Describe each of the following HTML controls as used in web application interfaces:
- (i) Checkbox. (2 marks)
 - (ii) Radio button. (2 marks)
 - (iii) Fieldset. (2 marks)
- (b) Enumerate four web-based tasks performed by Dreamweaver tool on a site within your local computer. (4 marks)
- (c) Explain the following parts found in a Dreamweaver tool site:
- (i) Local folder. (2 marks)
 - (ii) Remote folder. (2 marks)
- (d) Write HTML code that displays the following on a web browser:

| CALENDAR | |
|----------|-----|
| Month | Day |

(6 marks)
(Total: 20 marks)

QUESTION THREE

- (a) Differentiate between a JavaScript function and a JavaScript event. (2 marks)
- (b) (i) State two ways in which JavaScript could be included in a HTML document. (2 marks)
- (ii) Using a Do..While Loop, write a JavaScript function that prints on a HTML document all numbers between 1 and 200 that are evenly divisible by 7. (6 marks)

- (c) Explain the function of the following options located in the properties inspector bar of Dreamweaver application:
- (i) Tag. (2 marks)
 - (ii) Visibility. (2 marks)
 - (iii) Width. (2 marks)
- (d) Distinguish between "GET" and "POST" methods as used in web forms. (4 marks)
- (Total: 20 marks)**

QUESTION FOUR

- (a) Explain the following HTML tags:
- (i) ` ` (1 mark)
 - (ii) `&` (1 mark)
 - (iii) `<u> </u>` (1 mark)
- (b) With the aid of appropriate examples, differentiate between "server side" and "client side" scripting. (4 marks)
- (c) Contrast between the following terms:
- (i) Timeline and layer. (2 marks)
 - (ii) Frame and key frame. (2 marks)
- (d) Discuss the importance of animation in e-commerce websites. (6 marks)
- (e) Using an example, explain three parts that make up a universal resource locator (URL). (3 marks)
- (Total: 20 marks)**

QUESTION FIVE

The figure below shows a login window:

The figure shows a web browser window with the following elements:

- Address bar: `http://localhost/websites/index.html`
- Form fields:
 - Username:
 - Old password:
 - New Password:
 - Repeat New Password:
- Button:

The login window works as follows:

1. A user enters a username and old password which the underlying code verifies for correctness.
2. The user enters a new password and repeats the password. The underlying code verifies if the two passwords are identical.
3. In each of the above two cases, the user is notified through appropriate JavaScript prompts of wrong old password and mismatching passwords respectively.

Required:

- (a) John Kiarie has entered his username as "JohnK98". His old password is "98Knh05" and the new password is "98Knh0J&@".

Considering that the JavaScript code will be in an external file, write a JavaScript function that will validate the old password captured from the user interface. (8 marks)

- (b) Write HTML code to create the interface in (a) above.

Note that the controls are enclosed in a table. Ensure that a click of the button should call function (a) above. (10 marks)

- (c) Suggest two other alternative ways of resetting passwords. (2 marks)

(Total: 20 marks)

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