

2920/304

INTERNET BASED PROGRAMMING

November 2018

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE III

INTERNET BASED PROGRAMMING

3 hours

This paper consists of 4 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

1. (a) Explain the function of the HTML tag `<!doc type>`. (2 marks)
- (b) Outline **four** attributes of the *option tag* in a select control form. (4 marks)
- (c) Distinguish between each of the following pairs of HTML tags:
- (i) `<big>` and `<basefont>`
 - (ii) `<p>` and `
` (6 marks)
- (d) Ali would like to develop a web site using a *What You See Is What You Get* (WYSIWYG) editor. Explain **three** benefits of using this editor. (6 marks)

2. (a) Explain the function of each of the following attributes of a table:
- (i) `cellspacing`; (4 marks)
 - (ii) `cellpadding`; (4 marks)
- (b) Explain each of the following characteristics of web authoring tools:
- (i) cross-platform capability; (4 marks)
 - (ii) runtime player for distribution. (4 marks)
- (c) The final step in web page development is transferring the web document to a web server. Explain **three** ways in which this can be achieved. (6 marks)
- (d) Mari college intends to sensitize its website users on possible security attacks. Describe **three** such attacks. (6 marks)

3. (a) Outline the function of each of the following HTML tags as used in web programming:
- (i) `<script>`
 - (ii) ``
 - (iii) `<dl>`
 - (iv) `<caption>`
- (b) Explain the function of each of the following components of a uniform resource locator:
- (i) scheme;
 - (ii) host name;
 - (iii) query string. (6 marks)
- (c) Write a HTML code that would display the registration form shown in Figure 1 when run on a browser. (10 marks)



Figure 1

4. (a) Explain **two** advantages of expressing dimensions of tables used in a website as fixed design in web development. (4 marks)

(b) Explain each of the following terms as used in the Internet:

(i) broken links;

(ii) browser;

(iii) Common Gateway Interface. *Set of rules that set the running of script in a browser.* (6 marks)

(c) Write a JavaScript program that would prompt a user to enter the radius of a circle. The program should then use a function to calculate the circumference of a circle. *πr² 110* (10 marks)

5. (a) (i) State the tags that are used for each of the following:

(I) define a division or a section in a HTML document;

(II) override the current text direction;

(III) defines a line which separates elements in a web page;

(IV) defines the string to be displayed in the browser title bar. (4 marks)

(ii) Outline **four** attributes of a frame tag as used in HTML. (4 marks)

(b) Ali, a web designer, was advised to include *plugs-ins* in a web site he was creating. Explain **three** uses of the plugs-ins. (6 marks)

(c) BMT Company has contracted personnel to *develop* their company website. Explain **three** factors that the personnel should consider during the design. (6 marks)

6. (a) Outline the function of each of the following *array object methods* in JavaScript:

(i) split()

(ii) concat()

(iii) toString()

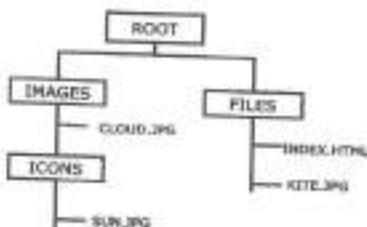
(iv) push()

(4 marks)

(b) Distinguish between *embedded script* and *external script* as used in JavaScript. (4 marks)

(c) Explain **three** reasons why it is important for web sites to be validated before implementation. (6 marks)

(d) The figure below shows a directory tree structure of a website having three images *Kite*, *Cloud* and *Sun.jpg*. Use it to answer the question that follows.



Write a HTML code that would insert the three images in their respective file locations. (6 marks)

7.

- (a) Outline **four** characteristics of *get request* method as used in web design. (4 marks)
- (b) Distinguish between `<fieldset>` and `<colgroup>` as used in HTML. (4 marks)
- (c) Describe each of the following statements in HTML.
 - (i) `<input type="radio" name="gender" value="male"> Gender
`
 - (ii) `<input type="checkbox" name="sports" value="soccer" checked> Soccer
` (4)
 - (iii) Password `<input type="password" name="password">` (6 marks)
- (d) Write a HTML code that would display the following list when run on a browser. (6 marks)

Countries list :

1. Kenya
 - Nairobi
 - Mombasa
2. Uganda
3. Tanzania
7. South Africa
8. Malawi
9. Lesotho

```

<html><head></head>
<body>
<ul style="list-style-type: none;">
<li> Kenya </li>
<ul style="list-style-type: none;">
<li> Nairobi </li>
<li> Mombasa </li>
</ul>
</li>
<li> Uganda </li>
<li> Tanzania </li>
<li> South Africa </li>
<li> Malawi </li>
<li> Lesotho </li>
</ul>
    
```



8.

- (a) Outline the function of each of the following event handlers in JavaScript:
 - (i) `onmouseup;`
 - (ii) `onclick;`
 - (iii) `onmouseout;`
 - (iv) `onunload.` (4 marks)
- (b) Distinguish between a *method* and an *object* as used in JavaScript. (4 marks)
- (c) Joel, a student, opted to use *tables* in a web page he developed. Explain **three** benefits of using this option. (6 marks)
- (d) Write an ASP program that would display all the even numbers from 2 to 100 on a web browser. Use a *for loop*. (6 marks)

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