

2920/304

INTERNET BASED PROGRAMMING

July 2019

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE III

INTERNET BASED PROGRAMMING

3 hours

INSTRUCTION TO CANDIDATES

*This paper consists of **EIGHT** questions.
Answer any **FIVE** questions in the answer booklet provided.
Candidates should answer the questions in English.*

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) Outline **four** attributes of a <marquee> that may be used to set its movement in a web page. (4 marks)
- (b) Distinguish between *sequential navigation* and *hierarchical navigation* schemes as applied in web design. (4 marks)
- (c) Explain **three** disadvantages of *common gateway interface* approach in web programming. (6 marks)
- (d) Ali has been tasked to design a web site for an organization and would like to include *text input* controls on the forms. Explain **three** controls that he is likely to consider. (6 marks)
 (i) Check box
 (ii) Radio button
 (iii) Select box
2. (a) Outline **four** uses of *server side scripting language*. (4 marks)
- (b) Distinguish between a *web page* and a *web server* as used in the internet. (4 marks)
- (c) Explain **three** reasons for having each of the following features in web authoring software. (6 marks)
 - (i) Script language program;
 - (ii) Integrated multimedia elements;
 - (iii) Supporting CD-ROM or Laser Disc sources.
- (d) Write a JavaScript program embedded in HTML that prompts the user to enter a number and then displays the message, "*number is less than 10*" or otherwise on an alert box. (6 marks)
3. (a) Outline **four** characteristics of HTML tags. (4 marks)
- (b) Describe each of the following as used in web design. (6 marks)
 - (i) site map;
 - (ii) links;
 - (iii) buttons.
- (c) Distinguish between *structured authoring tools* and *unstructured authoring tools* as used in web design. (4 marks)
- (d) Write a JavaScript program embedded in HTML to display all the even numbers between 0 and 20. Use a *for loop* statement. (6 marks)
4. (a) Jane a web developer was asked to develop an *effective website* for a business.
 - (i) Explain the term an *effective website*. (2 marks)
 - (ii) Explain **three** qualities of an effective website. (6 marks)
- (b) Distinguish between *spoofing* and *snooping* as applied in web site security. (4 marks)
- (c) Write a JavaScript program embedded in HTML that prompts a user to enter two numbers using a function the program then computes the product of the two numbers and displays the results using an alert function. (8 marks)

5. (a) Outline **four** attributes of a `<textarea>` as used in HTML. (4 marks)
- (b) Explain **three** reasons for performing security test on a web site that has been developed. (6 marks)
- (c) Write a HTML code that would display the following form when run on a browser. (10 marks)

First name

Last name

COURSE

- ☐ ICT
- ☐ MEC

GAMES

- ☐ Football
- ☐ Netball

Comment

6. (a) Outline **four** attributes of a `<meta>` as used in HTML. (4 marks)
- (b) Explain the effect of each of the following tags in a web page: (6 marks)
- (i) `<!-- ... -->`
 - (ii) `<sup>`
 - (iii) `
`
- (c) The following is a table to be displayed on a web page.

Column A	Column B
Data 1	Data 2
Data 3	

Write a HTML code to display the table with the following attributes: (10 marks)

- The table to occupy 50% of the browser's window;
- The table cells to have spacing of 4 pixels ;
- To have a caption with the text "TABLE TITLE" at the top of the table;
- First row to be table heading;
- Second row to have a green background colour;
- The cells in the third row to be merged and the contents aligned at the centre.

7. (a) (i) Outline ^{Java Script} ^{HTML} ^{CSS} ^{PHP} ^{Perl} ^{PLP} **four** scripting languages that could be used to develop a website. (2 marks)
- (ii) Explain **three** factors to consider when selecting a web programming language. (6 marks)
- (b) Explain **three** methods that one may use when setting colour schemes in a web page been developed. (6 marks)
- (c) Explain **three** benefits of using an ASP in web development. (6 marks)
8. (a) State a circumstance under which each of the following JavaScript events may be triggered in HTML. (4 marks)
- (i) onAbort;
- (ii) onBlur;
- (iii) onKeyDown;
- (iv) onReset.
- (b) (i) Explain **two** uses of a web form to a hotel industry. (4 marks)
- (ii) Explain **three** reasons for connecting web forms to a database. (6 marks)
- (c) Write a HTML code that would display the following listed items when run on a browser. (6 marks)

INTAKES FOR MONTH OF AUGUST

- BUSINESS STUDIES
- BUSINESS INFORMATION TECHNOLOGY
- ECONOMICS

INTAKES FOR MONTH OF SEPTEMBER

- B. MOTOR VEHICLE
- C. MECHANICAL
- D. ELECTRICAL

① <html><head><title>xxx </title> </head>
<body>xxx <form>xxx <div> </div> </form> </body> </html>

② Forms

<input type = "text" name = "text" size = "50" />
<input type = "password" name = "Pword" />
<input type = "radio" name = "Male" Male />
<select>
<option> <option> = "MBA" MBA />
<input type = "Reset" value = "Clear" />
THIS IS THE LAST PRINTED PAGE.
<input type = "Submit" value = "Submit" />