SCAN

| Name:                      | Index No:  | / |
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| 2920/304                   | Signature: |   |
| INTERNET BASED PROGRAMMING |            |   |
| November 2013              | Date:      |   |
| Time: 3 hours              |            |   |





## THE KENYA NATIONAL EXAMINATIONS COUNCIL

# DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

## MODULE III

#### INTERNET BASED PROGRAMMING

#### 3 hours

#### INSTRUCTIONS TO CANDIDATES

Write your name and index number in the spaces provided above.

Sign and write the date of examination in the spaces provided above.

This paper consists of EIGHT questions.

Answer any FIVE of the eight questions in the spaces provided in this question paper.

All questions carry equal marks.

Candidates should answer the questions in English.

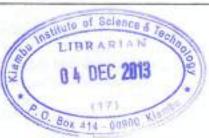
### For Examiner's Use Only

| Question             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Total<br>Score |
|----------------------|---|---|---|---|---|---|---|---|----------------|
| Candidate's<br>Score |   |   |   |   |   |   |   |   |                |

This paper consists of 13 printed pages.

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

| (iii) <pre></pre>  | (a) |       | the function of each of the following HTML tags:   | 322            |
|--|-----|-------|--|----------------|
| (iii) <a href="total"></a>   |     | (i)   | <button></button>  | (2 m           |
| (b) (i) State the threat to information posed by each of the following criteria on the into I. hacking; (2 multiple of the information and in the into I. hacking; (2 multiple of the information about their clip of their clip |     | (ii)  | <pre><pre></pre></pre>   | (2 m           |
| II. Malware. (2 million of the company has a webserver which host valuable information about their cline of two ways in which the company would protect the content in the web. (4 million of the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration. (2 million of the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration. (2 million of the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration. (2 million of the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration.  |     | (iii) |  | (2 m           |
| II. Malware. (2 million of the company has a webserver which host valuable information about their cline of two ways in which the company would protect the content in the web. (4 million of the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration. (2 million of the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration. (2 million of the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration. (2 million of the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration.  |     | 1     |  |                |
| (ii) Webi Company has a webserver which host valuable information about their cli Explain two ways in which the company would protect the content in the web.  (4 r  (c) Write a HTML code for a webpage that would display the text "Home Page" on the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration.  (2 r  (d) Gavin a webmaster prefers to use a GUI applications such as Adobe Dreamweaver whe creating HTML files, Outline four benefits that he achieves from using this strategy.  | (b) | (i)   | State the threat to information posed by each of the following criteri   | a on the inter |
| (ii) Webi Company has a webserver which host valuable information about their cli Explain two ways in which the company would protect the content in the web.  (4 r  (4 r  (5)  Write a HTML code for a webpage that would display the text "Home Page" on the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration.  (6)  Gavin a webmaster prefers to use a GUI applications such as Adobe Dreamweaver whe creating HTML files. Outline four benefits that he achieves from using this strategy.  |     |       | I. hacking;  | (2 m           |
| (ii) Webi Company has a webserver which host valuable information about their cli Explain two ways in which the company would protect the content in the web.  (4 r  (4 r  (5)  Write a HTML code for a webpage that would display the text "Home Page" on the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration.  (6)  Gavin a webmaster prefers to use a GUI applications such as Adobe Dreamweaver whe creating HTML files. Outline four benefits that he achieves from using this strategy.  |     |       | Manager and a second se |                |
| (c) Write a HTML code for a webpage that would display the text "Home Page" on the browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration.  (2 to Gavin a webmaster prefers to use a GUI applications such as Adobe Dreamweaver whe creating HTML files. Outline four benefits that he achieves from using this strategy.   |     |       | II. Malware.   | (2 m           |
| browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration. (2 mg/s)  (d) Gavin a webmaster prefers to use a GUI applications such as Adobe Dreamweaver whe creating HTML files. Outline four benefits that he achieves from using this strategy.   |     |       | Met  | - Account      |
| browser's title bar and a search engine should be able to locate the page using keywords flower and home decoration. (2 mg/s)  (d) Gavin a webmaster prefers to use a GUI applications such as Adobe Dreamweaver whe creating HTML files. Outline four benefits that he achieves from using this strategy.   |     |       | 285/1  |                |
| creating HTML files. Outline four benefits that he achieves from using this strategy.  | (c) | brows | ser's title bar and a search engine should be able to locate the page using  |                |
| creating HTML files. Outline four benefits that he achieves from using this strategy.  |     |       |  |                |
|  | (d) |       |  |                |
|  |     |       |  |                |
|  |     |       |  |                |



| 2. | 2. (a) | Categorise each of the following languages as either web scripting la<br>application programming. | nguage or desktop |
|----|--------|---|-------------------|
|    |        | ASP.net, Visual Basic, Turbo Pascal, C++, Perl, PHP   | (3 marks)         |

| (b) | With the aid of examples, explain two ways of setting font-size attribute in HTML. (4 marks) |   |
|-----|--|---|
|     |  | - |

| (c) | Describe three examples of protocols used in the internet. | (6 marks) |
|-----|--|-----------|
|     |  |           |
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| (d) | Write a JavaScript code embedded in HTML that | would display the following multiplication |
|-----|---|--|
|     | table when ran on a browser. Use for loop.    | (7 marks                                   |

## MULTIPLICATION

## TABLE

 $7 \times 0 = 0$ 

7 x 1 = 7

7 x 2 = 14

 $7 \times 3 = 21$  $7 \times 4 = 28$ 

7 x 5 = 35

 $7 \times 6 = 42$ 

 $7 \times 7 = 49$ 

7 x 8 = 56 7 x 9 = 63

7 x 10 = 70

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| (a) | (i)   | Explain the function of inline frames as used in HTML codes.   | (2 |
|     |       |  |    |
|     | (ii)  | List three examples of social sites available in the internet.   | (3 |
|     |       |  |    |
| (b) | Disti | nguish between <i> and <em> tags as use in internet programming.</em></i>  | (2 |
| (e) |       | e an ASP code embedded in HTML code that would be used to display a<br>bers from 1 to 9 in a columnar form when run on a browser. Use a for-ne |    |
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|     | (ii)   | Kiki a web developer, has been mandated to create a website for he has a variety of web hosting companies that she has to choose from company's website. Explain <b>four</b> factors that she has to consider w selection. | to host the |
|-----|--|--|-------------|
| _   |  |  |             |
| (a) | Defir  | né each of the following terms as used in HTML:<br>page layout;  | (2 marks    |
|     | (ii)   | whitespace.  |             |
| (b) | <scr<br>func<br/>f<br/>var<br/>sum<br/>retu<br/>}</scr<br> | pret the following JavaScript segment code giving the output.  ript> ction mynumber(x,y)  sum; = x+y; arn sum;  rt( mynumber (3,6)); ript>   | (6 marks    |
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| (c)      | Figure 1 show contents of a document to be displayed on a webpage. Use it to answer the<br>question that follows:       |     |
|----------|---|-----|
|          | The Garden Company  |     |
|          | Welcome to The Garden Company! We hope you will find useful information about gardening from our site.                  |     |
|          | Come See our Store  |     |
|          | We are located at:<br>Fifth Avenue, Wakulima Street   |     |
|          | The head office has been moved from Makutane to this location.  |     |
|          | Please stop by and have a look at our extensive inventory from<br>Monday through Saturday, 7:00 a.m. to 5:00 p.m daily. |     |
|          | Copyright 2012 GC ™ No material may be reproduced without written permission  |     |
|          | Figure 1  |     |
|          | Write a HTML code to generate the following when run on a web browser. (8 mark  | ks) |
|          |   |     |
|          | 25/   | =   |
|          | <del>o'o'</del>   |     |
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| (d) | (1)  | Under what circumstance is the value for the type attrib<br>creating forms in HTML.  | oute set to "hidden" when (2 marks          |
|-----|------|--|---|
|     | (ii) | Explain one reason for the current trend of slicing imag   | es during web design.<br>(2 marks           |
| (a) | (i)  | Outline four examples of web authoring software that g<br>when developing website.   | generates codes automatically<br>(2 marks   |
|     | (ii) | Explain three disadvantages of using web editors as a to   | ool for creating a website.<br>(6 marks     |
|     |      | "Jel.com   |   |
| (b) | in a | e an HTML code that would be used to display the following web browser.  In point  1. First tertiary point  2. Example 1  3. Example 2  2. Second tertiary point  in idea  Supporting idea  Detail for the supporting idea   | ng list as it appears when ran<br>(7 marks) |
|     |      | LIRRARIAN PER SOLUTION OF SCIENCE & PARTIE DE SOLUTION |   |

|     |   | j.  |                                     |  |  |  |  |
|-----|---|---|-------------------------------------|--|--|--|--|
|     |   |   |                                     |  |  |  |  |
| (c) | With the aid of examples, distinguish between "= =" and "= = =" operators as used in                                      |   |                                     |  |  |  |  |
|     | JavaScript. (5  |   |                                     |  |  |  |  |
|     |   | Met.  |                                     |  |  |  |  |
| (a) | Explain the function of each of the following table attributes as used in HTML and in each case, state its default value. |   |                                     |  |  |  |  |
|     | (i)   | cellpadding;  | (2 marks)                           |  |  |  |  |
|     | (ii)  | cellspacing;  | (2 marks)                           |  |  |  |  |
|     | (iii)   | valign;   | (2 marks)                           |  |  |  |  |
| (b) | (i)   | Outline three types of graphic file formats that can be di<br>without requiring additional application. | isplayed on a web page<br>(3 marks) |  |  |  |  |
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6.

|     | examples   | of graphics applifiles for the websit     | cation that wou    |                    | eate, edit, and format (3 marks)  |  |  |
|-----|--|---|--------------------|--------------------|---|--|--|
|     |  |   |                    |                    |   |  |  |
| (c) |  | of Technology made college may use        |                    | been advised to ha | ve a website. Outline<br>(4 marks)  |  |  |
| _   |  |   |                    |                    |   |  |  |
| (d) | In order to cut do   | own the cost of hos<br>s can advertise. E | sting the site, sh |                    | ed her company services<br>spaces on the webpages<br>ce can be used to<br>(4 marks) |  |  |
|     |  |   |                    |                    |   |  |  |
| (a) | With the aid of a diagram in each case, describe each of the following types of web page structures used when linking web pages. |   |                    |                    |   |  |  |
|     | (i) linear;  |   | The                |                    | (3 marks)   |  |  |
|     |  |   | ,                  |                    |   |  |  |
|     |  |   |                    |                    |   |  |  |
| _   | (ii) augmente  | d linear.                                 |                    |                    | (3 marks  |  |  |
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7.

| (b) |       | e a JavaScript code embedded in HTML that would display 50 integer values which are ples of 3 starting from 69. Use while loop.  (5 marks) |
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|     |       | 9000000 10100 PARCONIC CO. C.  |
| (c) | Write | e an HTML statement that would be used to:   |
|     | (i)   | display a background picture named "kenyamap.gif" stored a folder named images; (2 marks)  |
|     |       | 200° ,   |
|     | (ii)  | open a website www.cyberspace.com when the text 'click here' is clicked. (2 marks)   |
|     |       |  |



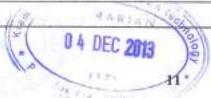
(d) Table 1 shows an output on a browser. Write a HTML program that would generate the table as it appears. (5 marks)

# ADMINISTRATION

| DEPARTMENT        | NUMBER  |  |  |
|-------------------|---------|--|--|
| Reception         | 0897000 |  |  |
| Human Resource    | 0897003 |  |  |
| OTHER DEPART      | MENTS   |  |  |
| Call centre       | 0897005 |  |  |
| Technical Support |         |  |  |

Table I

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| (a)        | (i)   | Categor<br>or clien   | Categorise each of the following internet based programming languages as server-side or client-side. |         |         |                |                               |                         |
|------------|---|---|--|---------|---------|----------------|-------------------------------|-------------------------|
|            |   | HTML  | ASP  | PHP     | CSS     | JavaScript     | VBScript                      | (3 marks                |
|            |   |   |  |         |         |                |                               |                         |
|            |   |   |  |         |         |                |                               |                         |
|            |   |   |  |         |         |                |                               |                         |
|            | (ii)  | Outline<br>client-si  | gramming language and<br>(3 marks  |         |         |                |                               |                         |
| _          | -   |   |  |         |         |                |                               |                         |
|            |   |   |  |         |         |                |                               |                         |
| (b)        | With pathr  | ith the aid of an example in each case, distinguish between absolute pathname and thname as used in HTML. |  |         |         |                |                               |                         |
|            |   |   |  |         |         | X con          |                               |                         |
|            |   |   |  |         | 3       | der            |                               |                         |
|            |   |   |  | -       | 30      |                |                               |                         |
|            |   |   |  |         |         |                |                               |                         |
|            |   |   |  |         |         |                |                               |                         |
| (c)        | Write   | a HTML  | code th  | nat wou | ld gene | erate the form | shown below whe               | n run on a web browser. |
|            | Write a HTML code that would generate the form shown below when run on a web<br>The admission number control should accommodate 8 characters. |   |  |         |         |                |                               | (8 marks                |
|            | Adm   |   | iber:<br>male<br>female  |         |         | _              |                               |                         |
|            | Cou   | rse.  | Regular<br>Part tim<br>Part tim  | ne day  | ng      |                |                               |                         |
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