1. (a) (i) Outline **three** uses of server side web programs. (3 marks)

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(ii) Explain **two** factors to consider when choosing a web programming language. (4 marks)

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(b) Explain two circumstances under which a web designer would prefer to use a web authoring tool when developing a website. (4 marks)

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(c) Outline **three** features of _micromedia dreamweaver_. (3 marks)

_____

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_____

(d) Write a JavaScript code embedded in HTML that would be used to display numbers and computes their cubes as shown below. Use while loop. (6 marks)

Number	Cube
1	1
2	8
3	27
4	64
5	125

_____

2. (a) (i) State **two** technical challenges faced when enforcing *internet security*. (2 marks)

_____

(ii) Describe **two** web programming interfaces. (4 marks)

_____

(b) Charles, a web designer, intends to develop a web site for a company he is working for. Describe **two** web authoring tools other than Dreamweaver that he would use to develop the site. (4 marks)

_____

(c)   Interpret the following JavaScript program.   (4 marks)

```
<script language="JavaScript">
var home = new Image();
home src="http://yourdomain.com/image.jpg"
var home-roll = new Image();
home-roll src="http://yourdomain.com/image.jpg"
</script>
```

(d)   With the aid of a diagram in each case, explain the function of each of the following tags as used in web design.

(i)   <tfoot>;   (3 marks)

(ii)   <colgroup>.   (3 marks)

3.   (a)   State **three** circumstances under which a *paragraph* tag would be used.   (3 marks)

(b)   Describe each of the following types of web authoring editors:

(i)   Pure WYSIWYG;   (2 marks)

(ii)   Compound editor.   (2 marks)

(c) (i)   Explain a circumstances under which a *Split view* option would be used when
           designing a web page using a web authoring tool.   (3 marks)

(ii)   Figure 1 shows a section of a web navigation toolbar of a web authoring tool. Use it to
       answer the question that follows.

| Code | Split | Design | Live Code | | Live View | Inspect | | | |
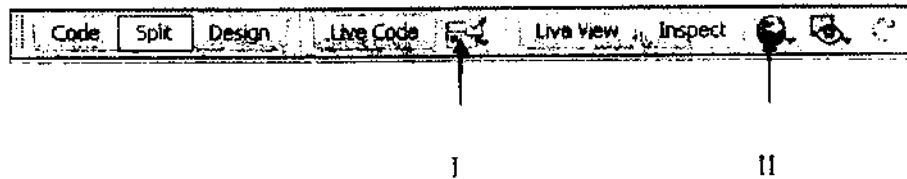
Figure 1

Outline the function of the tools labeled I and II.   (2 marks)

(d) Write a HTML code that would be used to generate the following output.   (8 marks)

Courses Offered at Best Technologies College.

Course	Duration	Revision dates	Fees for single subject for revision
DICT	6 months	12/08/2014-12/09/2014	2,000
DSS	6 months		2,000
CIT	6 months	15/09/2014-01/10/2012	1,500
CEET	6 months		1,500
CCAT	6 months		1,500

2920/304   5   Turn over

4. (a) Outline **four** types of *hyperlinks* used in web programming. (4 marks)

(b) Explain the function of each of the following commands as used in web authoring tools.

    (i) design (2 marks)

    (ii) live code. (2 marks)

(c) Interpret each of the following statements as used in HTML frames.

    (i) cols="200,*" (2 marks)

    (ii) scrolling = "no" (2 marks)

(d) Write a HTML code that would be used to generate the following output. Apply font Cambria to the text. (8 marks)

Binary integer to decimal conversion

The following are the steps followed when converting 110 binary to decimal.
1. Write the given number such as 110_2
2. Below each digit write its respective place value starting from the right.

    1   1   0

    $2^2 = 4$ $2^1 = 2$ $2^0 = 1$

3. Multiply each digit with its respective place value.

    1x4= 4   1x2= 2   0x1= 0

4. Add the products then write the answer in base ten to get the decimal equivalent.

    $6 + 2 + 0 = 6_{10}$

2920/304   7   **Turn over**

5. (a) State the function of each of the following tags:

    (i) <blockquote> (1 mark)

    _____

    (ii) <href> (1 mark)

    _____

    (b) (i) Explain the function of each of the following terms as used in Web authoring tools:

        I. paste special; (2 marks)

    _____

    _____

    _____

        II. copy. (2 marks)

    _____

    _____

    (ii) Differentiate between _spoofing_ and _phishing_ as used in the Internet. (4 marks)

    _____

    _____

    _____

    _____

    _____

    _____

    (iii) Explain the function of the <hr> tag as used in HTML. (2 marks)

    _____

    _____

    _____

    _____

    (c) With the aid of an example, outline a statement the would be used to declare a string of characters in JavaScript programming language. (2 marks)

    _____

    _____

    _____

    _____

    _____

    _____

(d)   Write an ASP program embedded on HTML that would be used to display all the multiples of 5 in the range 1 and 50.   (6 marks)

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6.   (a)   Outline **four** disadvantages of using *frames* when designing a web site.   (4 marks)

_____

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_____

(b)   (i)   Explain **two** methods used when transmitting data collected from a form to a server.
                                                                              (4 marks)

_____

_____

_____

       (ii)   Nicholson, a web master, in an organization intends to enhance security on the data in their networked computers. Outline **two** security measures that he would put in place.
                                                                              (2 marks)

_____

_____

_____

_____

(c) Explain a circumstance under which a web site designer would use a *frame* when designing a website. (2 marks)

_____

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(d) Write a JavaScript code embedded in HTML that accepts a password of a user. The program should then output the message; "Valid Password" if password entered is KNEC14 else displays; "Invalid Password. (8 marks)

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7. (a) Outline **four** attributes associated with the *image tag*.   (4 marks)

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    ....

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    ....

    (b) Distinguish between *hypertext* and *hyperlink* as used in web programming.   (4 marks)

    ....

    ....

    ....

    ....

    (c) Differentiate between each of the following file formats:

         (i)   .fla and .swf   (4 marks)

    ....

    ....

    ....

    ....

         (ii) .flv and .swc   (4 marks)

    ....

    ....

    ....

    ....

    (d) With the aid of an example, describe the term *empty tag* as used in HTML.   (4 marks)

    ....

    ....

    ....

    ....

    ....

8. (a) State **three** examples of list tags used in HTML.   (3 marks)

    ....

    ....

    ....

(b) Differentiate between *external links* and *internal link* as used in web design. (4 marks)

....

....

....

....

(c) Charlyn, a computer user, had the following text on the design view of a web authoring tool she was using. Write a HTML code as it would appear in the code view window.

(5 marks)

INTERNET PROGRAMMING IS INTERESTING

AUTHORING TOOLS ARE USED FOR DEVELOPING THE CODES

LEARN THE TOOLS
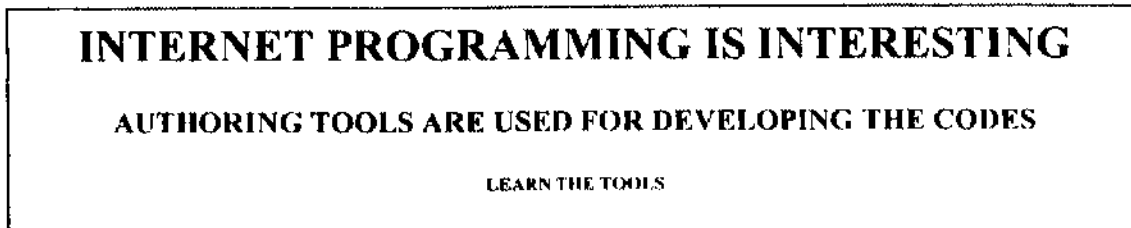
(d) Write a HTML code that would be used to generate the following output when ran on a web browser. (8 marks)

ONLINE COURSE REGISTRATION FORM

Surname: [_____]

FirstName: [_____]

MiddleName: [_____]

Select the level of course you are applying for:

⊙ Certificate ⊙ Diploma ⊙ Degree

Select the Course you would like to pursue:

```
Computer Science      ▲
Information Technology ▤
Electrical Engineering
Mechanical Engineering ▼
[Send]
```

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