CICT PART II SECTION 4

WEB DESIGN AND e-COMMERCE

FRIDAY: 25 May 2018.   **Time Allowed: 3 hours.**

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

QUESTION ONE

(a)   Describe three types of web hosting that would serve different kinds of clients in a country.   (6 marks)

(b)   (i)   The management of Maganini Technical College recently approached you seeking advice on the advantages of implementing an e-commerce solution on the cloud as opposed to a traditional ERP.

          Required:
          Compare the two systems based on maintenance, debugging, implementation time and security.   (4 marks)

       (ii)   Highlight four risks associated with cloud computing.   (4 marks)

       (iii)   Differentiate between grid computing and utility computing.   (4 marks)

(c)   Write HTML code for a marque that would move the following words from left to right:

          "Welcome to kasneb".

                                              (2 marks)
                                           (Total: 20 marks)

QUESTION TWO

(a)   Citing four areas, distinguish between "client side scripting" and "server side scripting".   (8 marks)

(b)   Use frameset tags to create an HTML document to render the following window when run on a browser:

                                                   (6 marks)

(c)   Write HTML and CSS code to display the monthly savings of four individuals shown in the table below:

Monthly savings

Firstname	Lastname	Savings
Peter	Griffin	Sh.100
Lois	Griffin	Sh.150
Joe	Swanson	Sh.300
Cleveland	Brown	Sh.250

Ensure that the table is formatted as follows:

1.   The row title to have a green background with white font colour.
2.   The first and third row to have yellow background.   (6 marks)
                                                (Total: 20 marks)

QUESTION THREE

(a)   Citing its importance, describe the concept of "event bubbling" in JavaScript.   (3 marks)

(b)   Write JavaScript code that shows how to refresh a web page after every 5 seconds.   (4 marks)

(c)   Explain the following concepts as used in e-commerce website design:

    (i)   Privacy policy.   (1 mark)

    (ii)   Responsive web design.   (1 mark)

    (iii)   Adaptive web design.   (1 mark)

(d)   Write HTML code to generate the following output on a browser:

    (i)   **A Description List**

Coffee
-       black hot drink

Milk
-       white cold drink

(3 marks)

    (ii)   A drop down list with the items: "volvo", "saab", "fiat" and "audi" preselect such that it displays the option "fiat" and a command button "Submit Query" on the browser as shown below:

You can preselect an option with the selected attribute.

| fiat | ▽ |

Submit Query

(4 marks)

    (iii)   Search Google display on a browser

Search Google: [   ]   Submit Query

(3 marks)

(Total: 20 marks)

QUESTION FOUR

Table 1 below shows the scores obtained by primary school students while Table 2 contains data on the criteria used to select the students into different categories of secondary schools.

Table 1

Student Index Number	Scores
9000018	312
8976722	401
9897222	378
5682323	290

Table 2

Secondary school category	Minimum score	Maximum score
County	200	299
Extra county	300	399
National school	400	500

Required:

(a)   Write HTML code that would render the interface below on a web browser.

```
┌──────────────────────────────────────────────────────────────┐
│ ⟨ ← ↩ → ⟩    http://localhost\website\index.html              │
├──────────────────────────────────────────────────────────────┤
│                                                                │
│   Students selected in different School Categories             │
│                                                                │
│      National            Extra County            County        │
│   ┌───────────┐       ┌───────────┐       ┌───────────┐        │
│   │           │       │           │       │           │        │
│   │           │       │           │       │           │        │
│   │           │       │           │       │           │        │
│   │           │       │           │       │           │        │
│   │           │       │           │       │           │        │
│   └───────────┘       └───────────┘       └───────────┘        │
│                                                                │
└──────────────────────────────────────────────────────────────┘
```
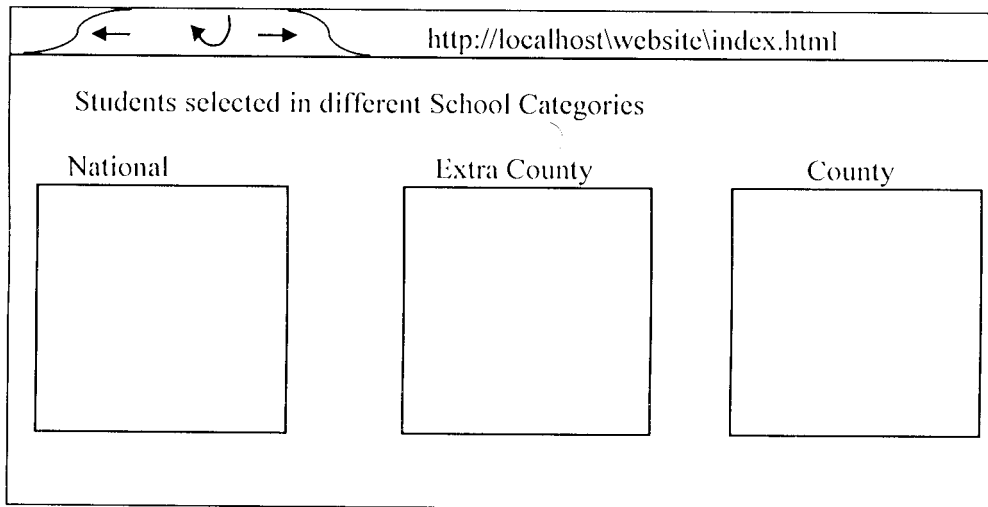
(6 marks)

(b)   Write a Javascript function named "evaluate ( )".

The function should declare an object called studentObj to hold student index numbers and scores. The evaluate function should determine and display the appropriate school category that a student would be selected as per the interface in (a) above.

Note: StudentObj takes the syntax, studentObj = [[,], [,], ... [,]].
(10 marks)

(c)   Write HTML code to call the evaluate ( ) function when the HTML page is loading.

Assume the function in (b) above is declared in an external file called "js_function.js".
(4 marks)

(Total: 20 marks)

QUESTION FIVE

(a)   Mathew Irenge recently registered a new business that deals with event planning. He has contracted you to create a website for his business.

Explain the steps you would take to ensure that the website is up and running once you have completed its design.
(6 marks)

(b)   To ensure customer loyalty, users of an e-commerce website should be able to access its services regardless of the platform or device that they use.

With reference to the above statement, evaluate four features that could enhance customer loyalty.
(8 marks)

(c)   Write HTML code that uses frames to create the header, main body and footer of a page. Name the frames as top_frame.htm, main_frame.htm and footer_frame.htm.

Assume the frames are stored in a subfolder named "html".
(6 marks)

(Total: 20 marks)

....