kasneb

CICT PART II SECTION 4

WEB DESIGN AND e-COMMERCE

FRIDAY: 1 December 2017.   **Time Allowed: 3 hours.**

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

QUESTION ONE
(a)   In relation to web design, differentiate between each of the following pairs of terms:

        (i)   HTML and XML.   (2 marks)

        (ii)   CGI interface and internet gateway.   (2 marks)

        (iii)   Motion tweens and classic tweens.   (2 marks)

        (iv)   Tiff image and JPEG image.   (2 marks)

(b)   Outline four guidelines to incorporating images in your website.   (4 marks)

(c)   Write HTML code to create the following form:

                                                                              (8 marks)
                                                                        (Total: 20 marks)

QUESTION TWO
(a)   Explain the role of each of the following scripting functions:

        (i) $_ POST function.   (2 marks)

        (ii) $_ GET function.   (2 marks)

(b)   Describe the following payment methods as used in e-commerce:

        (i)   Online or onsite methods.   (2 marks)

        (ii)   Offline or offsite methods.   (2 marks)

(c)   Mr. Mwachofi wishes to launch an e-commerce site to sell and market his products. However, he is not very conversant with the complexities of transaction processing that come with an e-commerce site. After carrying out some research, he realises that there are themes that could provide him with a framework to carry out the design and content management of an e-commerce website.

        Required:
        Prepare a breakdown of the factors that should guide Mr. Mwachofi in order to purchase an appropriate theme.

                                                                              (8 marks)

(d)   Write HTML code that when executed creates a hyperlink with the text 'kasneb' that links the user to the kasneb website www.kasneb.or.ke.   (4 marks)

(Total: 20 marks)

QUESTION THREE

(a)   Describe the following terms in the context of e-commerce:

     (i)   Digital certificate.   (2 marks)

     (ii)   Certificate authority.   (2 marks)

     (iii)   Electronic cash.   (2 marks)

     (iv)   Electronic wallet.   (2 marks)

(b)   Citing an advantage in each case, distinguish between "server-side scripting" and "client-side scripting".   (6 marks)

(c)   Write HTML code that produces the following information when rendered on a browser:
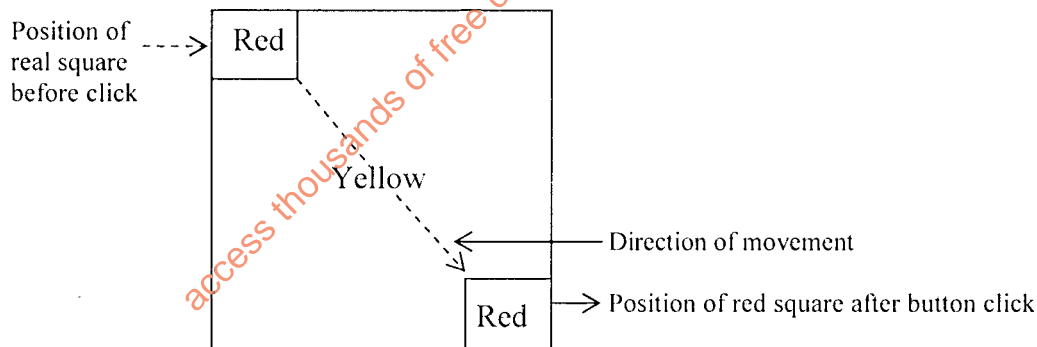
     Top 5 databases ranked by popularity:
         I.   Oracle.

         II.   MySQL.

         III.   Microsoft SQL server.

         IV.   PostgreSQL.

         V.   MongoDB.

Ordered lists should be used in cases where the order matters.

(6 marks)

(Total: 20 marks)

QUESTION FOUR

(a)   The diagram below represents a square measuring 400px by 400px whose background colour is yellow. The square contains a smaller square measuring 50px by 50px whose background colour is red. A program is required that moves the red square diagonally from the top left corner to the bottom right corner on the yellow square on the click of a button.

Required:
A Javascript code to accomplish the above task.   (10 marks)

(b)   Describe the following types of cloud deployments:

     (i)   Public.   (2 marks)

     (ii)   Private.   (2 marks)

     (iii)   Hybrid.   (2 marks)

(c)   "IT leaders must understand the advantages and disadvantages of cloud-based ownership models in order to select the right solution for their needs".

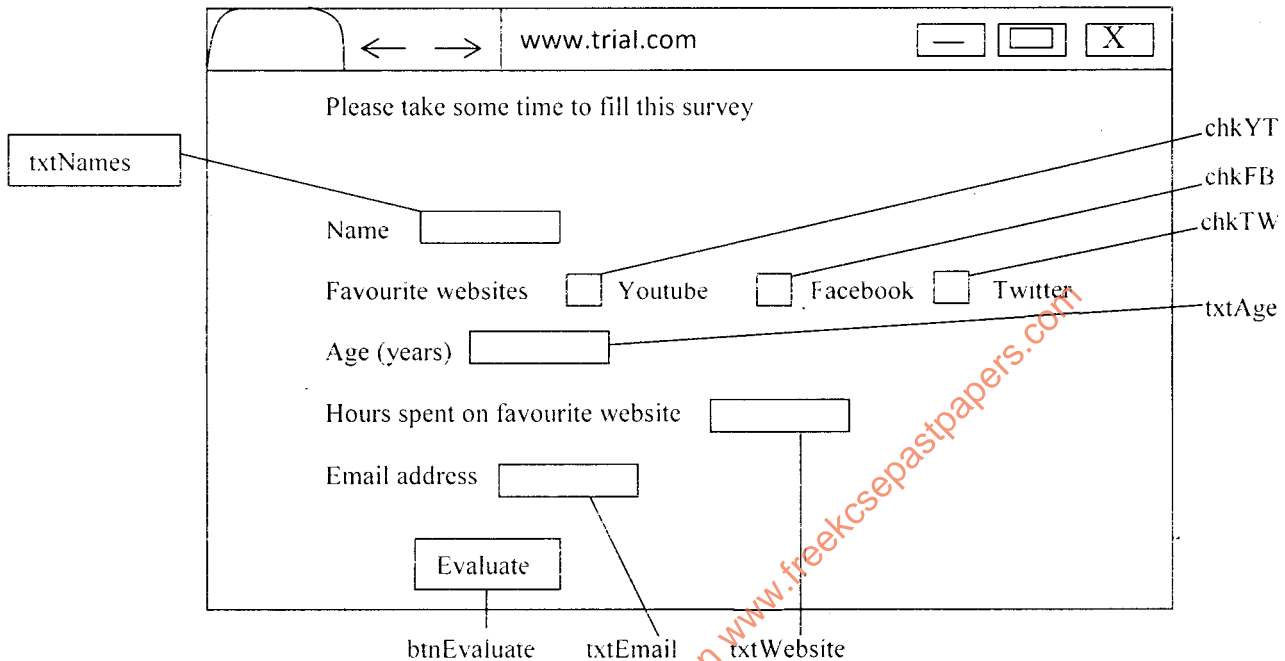   Justify the above statement.   (4 marks)

(Total: 20 marks)

QUESTION FIVE

(a)   With the aid of examples, analyse the following e-commerce revenue models:

    (i)   Advertising revenue model.   (3 marks)

    (ii)   Transaction fee revenue model.   (3 marks)

(b)   Distinguish between "web publishing" and "web hosting".   (4 marks)

(c)   Study the diagram below:

Required:

(i)   Write HTML code to create the above interface.

    Ensure that the click event of "btnEvaluate" button calls a Javascript function called "evaluate" that exists in a file called "survey.js".   (6 marks)

(ii)   Write a Javascript function called "evaluate" that retrieves interface values of the control such that a person who spends 0 – 2 hours on his favourite website is rated "moderate" while the one who spends 3 hours and above is rated "high".

    Ensure that an alert pop up is generated by the Javascript code which should display the name and use status (high or moderate) of each user.   (4 marks)

(Total: 20 marks)

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