

**KABARAK**



**UNIVERSITY**

**EXAMINATIONS**

**2008/2009 ACADEMIC YEAR**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN  
COMPUTER SCIENCE**

**COURSE CODE: COMP 325**

**COURSE TITLE: BUSINESS APPLICATION ARCHITECTURE**

**STREAM: Y3S2**

**DAY: FRIDAY**

**TIME: 2.00 – 4.00 P.M.**

**DATE: 20/03/2009**

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**INSTRUCTIONS:**

**Answer Question One and Any Other Two Questions.**

**PLEASE TURN OVER**

**QUESTION ONE (30 marks)**

- (a) Write a visual basic program to calculate the area of a circle and display the results using a message box. (6marks)
- (b) As a web designer what is the difference between home page and a web page? (3 marks)
- (c) Different programming languages may use different data types. Explain any three different data types used in visual basic. (3 marks)
- (d) Write a HTML code to display the following frames in any web browser. (5 marks)

Frame.html	
Frame2.html	Frame3.html

- (e) Most Internet applications, such as email, web access and database access, are based on the client/server model. What do you understand by client/server software architecture? (2 marks)
- (f) You have developed an application that is to run as a client on any computer system. Highlight any four characteristics associated with all client applications. (4 marks)
- (g) What is the difference between a form and a form window in visual basic? (2 marks)
- (h) With code examples differentiate between explicit and implicit variable declarations in visual basic. (5 marks)

**QUESTION TWO (20 marks)**

- (a) Looping can make programming a fun adventure. Write a visual basic program to implement the while loop. (4 marks)
- (b) Confusion has always engulfed people on the internet and the WWW. Explain the difference between the internet and the World Wide Web? (4 marks)

- (c) Controls help to simplify programming with VB. What is the use of the **OptionButton** control? (2marks)
- (d) As a software developer what do you understand by the term sever? Explain the differences between the Proxy server and Application server. (4 marks)
- (e) With code examples. Briefly explain the ordered lists and how they are used in any HTML document. (4marks)
- (f) Define a protocol giving two examples of protocols you know. (2 marks)

### **QUESTION THREE (20 marks)**

- (a) The client/server model has become one of the central ideas of network computing. Briefly explain its advantages. (4 marks)
- (b) In Visual Basic what is the difference between sub procedures and event procedures? (4 marks)
- (c) What is the use of the anchor tag in HTML documents? (2 marks)
- (d) Being the senior programmer at KPLC junior programmers will always depend on your advice. Highlight the steps that they should follow in building a visual basic application. (3 marks)
- (e) What is the difference between the local variables and global variables as used in visual basic? (4 marks)
- (f) (i) Define an array. (1 mark)
- (ii) Write the code on how a fixed array is declared in any visual basic program. (2 marks)

### **QUESTION FOUR (20 marks)**

- (a) In relation to software architecture explain the different tires of the 3-tier architecture. (6 marks)
- (b) Differentiate between extranet and intranet? (2marks)
- (c) Explain the differences between the picture box and the image box as used in Visual basic programming. (4marks)
- (d) Write a HTML code to show how to display a table in any HTML document. (4 marks)

- (e) As a programmer what is the difference between a function and a procedure? (4 marks)

**QUESTION FIVE (20 marks)**

- (a) Explain the difference between the following:-  
(i) Enterprise software. (2 marks)  
(ii) Enterprise infrastructure software. (2 marks)
- (b) Write a visual basic program to implement the IF.....THEN..... .ELSE construct (4 marks)
- (c) (i) What are comments? (1 mark)  
(ii) Write the code to show how to add comments in any HTML document. (1 mark)
- (d) Explain the output of the following program. (3 marks)

```
Private Sub Command1_Click()  
Static Counter As Integer  
Counter = Counter + 1  
Print Counter  
End Sub
```

- (e) Briefly explain peer-to-peer architecture? (2 marks)
- (f) Define application software? (2 marks)
- (g) Many people use the computer but may not understand the different capabilities made available. How then would you help them to understand the difference between an operating system and a utility? (3 marks)