KABARAK   **UNIVERSITY**

EXAMINATIONS

2009/2010 ACADEMIC YEAR
FOR THE DEGREE OF BACHELOR OF COMMERCE

COURSE CODE: **BMGT 121**

COURSE TITLE: **COMPUTER PROGRAMMING FOR BUSINESS**

STREAM: **Y1S2**

DAY: **FRIDAY**

TIME: **9.00 - 11.00 A.M.**

DATE: **11/12/2009**

INSTRUCTIONS:

1. Answer **questions ONE (1)** and **ANY TWO** other questions.
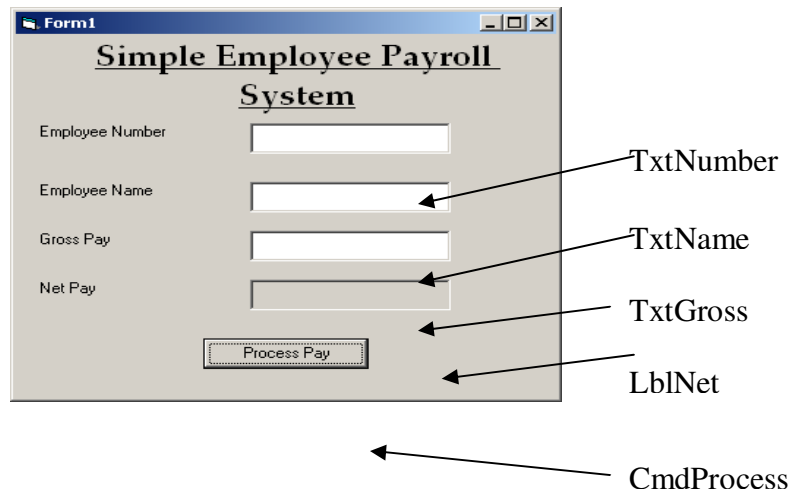2. Clearly label all your answers.

PLEASE TURN OVER

QUESTION-ONE (30MKS)

a) Write a visual basic program to check if a given numbers in a textbox is odd or even. If the number is even display on a message box "the number is even" followed by an OK button. Otherwise display on a message box "the number is odd "followed by a critical icon message. (3mks)

b) Write a visual basic code using IF-THEN else statements to display the following in a message box

AGE	MESSAGE	
0-12	child	
13-19	teenager	
20-35	youth	
36-50	retire	
Above 70	old age	
Otherwise	invalid age	(7mks)

c) Determine the errors for the following code:

```
Private Sub cmdButton_click()
txtBox.caption="Hello"
txtOne.ForeColor="vbRed"
LblTwo.text="Oh my God"
2=A
B=3,000
A*B=C
Print C                                                    (3mks)
```

d) Write an event procedure to Calculate and display the value of the expression:

$15-3(2+3^6)$ (2mks)

e) write visual basic code to:

   i) Return the current date and time (2mks)

   ii) Find the number of days between 20/02/2000 and 18/04/2008 (2mks)

f) With examples explain the following functions:

   i.   Len()

   ii. ASc()

   iii. Ucase() (3mks)

g) Write a program to find out if the given number is positive or negative or equal to zero. Use textboxes for input (3mks)

h) You have been requested to write a program that will allow the user to key in an employees gross pay. The program should then calculate the tax for an employee and display the net pay. Assume Tax is 20% of an employees pay, if the employee pay is greater than Ksh10,000 and less than 20000. Employees who earn Ksh20,000 or less than 40000 pay 30% of employee pay. Employees pay less than 10000 are not taxed.

Write a Visual Basic code that will generate the given GUI indicated in the following figure and compute the net pay when the processing command is clicked. (5mks)

QUESTION-2 (20MKS)

a) When P Shillings is deposited in a savings account at the interest rate r compound annually, the balance after n years is $P(1+r)^n$. Write a program to request the principal P and the interest rate r as input and compute the balance after 10 years. (3mks)

b) Write a program that requests the call number of a book as input and displays the location of the book as follows:

Call numbers	Location
100-199	Basement
200 to 500 and over 900	Main floor
501 to 900	Upper floor
700 to 750	Archives (5mks)

c) Discuss the three types of operators in visual basic with examples (6mks)

d) Write a program to find the number of days between 20/02/2000 and 18/04/2008

(2mks)

e) Differentiate between:

i) Local and public variables
ii) constant and variable (4mks)

QUESTION-3 (20MKS)

a) Differentiate between:

      i. listcount and listIndex property

      ii. check box and option buttons (4mks)

b) Write a program to generate numbers divisible by four with their squares and cubes

from 11 to 1002. (4mks)

c) The following program was written to assist in a companies tax calculations. Briefly

describe how this program works highlighting the data input, calculations and the expected

output. (3mks)

```
Private Sub CmdProcess_Click()
 'Tax is 20% of basic pay

  Dim a, b, c As Integer
  a = Val(TxtGrossPay.Text)

  If a > 10,000 Then
     b = 0.2* a
     c = a - b
     LblNetPay.caption = c
  Else
     LblNetPay.caption = a
  End If
```

d) Write a program to find the area of a circle.the radius is in the txtRadius textbox.The area

should be displayed on a message box (3mks)

e) A Photo copying center charges Kshs 2 per copy for the first 100 copies and Kshs 1.25 per

copy for each additional copy. Write a program that requests the number of copies as the

input and displays the total cost. (6mks)

QUESTION-FOUR (20MKS)

a) Write visual basic code for the interface for calculating the payroll given below:

Salary is as follows:

Grades A =4000, B=5000, C=6000, D=7000 and E=8000

Allowancces are given as follows:

Transport: car=2000, public=1500

Family: married=3000,   single=1000

House allowance: internal= 3400, external= 4000

Medical:20% of basic salary.

Tax is given as 30% of basic pay + house allowance

TOTAL ALLOWANCES=TRANSPORT+FAMILY+MEDICAL

NET PAY=SALARY+ALLOWANCES-TAX

(13mks)

b) Why is the option explicit important? (2mks)

c) Give the functions of the following date functions with examples;

     i.   Time()

    ii.   Timer()

   iii.   Now()

   iv.   Year()

    v.   Date() (5mks)

QUESTION-5 (20MKS)

a) Write a program to calculate the amount of a waiter's tip given the amount of bill and the percentage tip. The output should be a complete sentence that reiterates the inputs and gives the resulting tip. .For example.,if ksh 20 and 25% are the inputs, then the output n might read"A 25% tip on 20 dollars is 3 dollars   (4mks)

b) A computer store sells diskettes at Ksh.15 each for small orders or at Ksh.10 a piece for orders of 25 diskettes or more. Write a program that requests the number of diskettes ordered and displays the total cost.   (4mks)

c) Suppose automobile repair customers are billed at the rate of Kshs 200 per hour of labour.Also, costs for parts and supplies are subject to a 5% sales tax. Write a program to print out a simplified bill. The customer's name, the number of hours of labour and the cost of parts and supplies should be entered into the program via text boxes. When a command button is clicked, the customer's name and the costs should be displayed in the list box as shown below   (4mks)

d) You have been requested to develop a simple result grading system for ETC.

The system should allow the user to key in a students mark, determine the grade and display the student's grade. The colleges grading system is as follows:

Marks	Grade
100% - 70%	A
60% - 69%	B
50% - 59%	SECOND CLASS
40%-49%	THIRD CLASS
<= 39% AND >=0%	FAIL
<0 AND >100	INVALID MARK

Using IF-THEN statements design the system   (8mks)