



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE

DIPLOMA IN COMMUNICATION TECHNOLOGY (DIT)

DIPLOMA IN INFORMATION (COMMUNICATION) TECHNOLOGY (DICT)

END OF SEMESTER EXAMINATIONS

APRIL/MAY 2010 SERIES

EVENT DRIVEN PROGRAMMING I

TIME: 2 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of **TWO** Sections **A** and **B**.

Answer **ALL** Questions from Section **A** and any **TWO** Questions from Section **B**.

ALL Mobile Phones must be switched off.

SECTION A

(Attempt **ALL** Questions from this Section.)

(30 Marks Compulsory)

Question ONE

- (a). Explain the following as applied to event driven programming:
- (i). Event
 - (ii). Property
 - (iii). Method **(6 marks)**
- (b). (i). Explain the term 'comment' as applied to programming. **(2 Marks)**
(ii). With an example show how a comment is inserted in a Visual Basic Program. **(1 Mark)**
- (c). List any **FIVE** windows found in Visual Basic Integrated Development Environment. **(5 Marks)**
- (d). Explain the following terms:
- (i). Variable
 - (ii). Constant **(4 Marks)**
- (e). State any **SIX** mathematical operators used in Visual Basic Programming, giving an example of each. **(3 Marks)**
- (f). State any **EIGHT** data types used in Visual Basic Programming. **(4 Marks)**
- (g). Explain the use the following controls:
- (i). Check Box
 - (ii). Radio Button
 - (iii). Label **(3 Marks)**
- (h). Explain the following properties as applied to controls in Visual Basic.
- (i). Caption
 - (ii). Visible **(2 Marks)**

SECTION B : (40 MARKS)

(Attempt ANY **TWO** Questions from this Section.)

Question TWO

- (a). Employees earn basic salary, house allowance, travelling allowance and commission on sales made by the employee, which is calculated as a % of sales and is calculated as shown in table below. The employees pay tax that is calculated as a % of gross pay.

Sales (Ksh.)	Commission as % of Sales	Gross Pay	Tax as % of Gross Pay
0 -15,000	0%	0 – 15,000	0%
15,000 – 25,000	8%	15,000 – 25,000	10%
25,000 – 35,000	12%	25,000 – 35,000	20%
35,000 and over	15%	35,000 and over	30%

Write a Visual Basic procedure that will output commission earned by an employee, tax deduction and net pay. Attach the code to command button. Use InputBox and MsgBox.

(10 Marks)

- (b). Using suitable examples explain how a print statement can be used to output data from different objects.

(6 Marks)

- (c). Explain **TWO** ways in which properties can be set in Visual Basic Programming.

(4 Marks)

Question THREE

- (a). In a certain programming course, students study Visual Basic, Pascal and HTML. Write a Visual Basic even procedure that will out-put student number, student name and average mark of the three subjects for each of the 10 students in the class on a picture box.

(10 Marks)

- (b). Write a Visual Program that would generate and output the following data on the screen. Use a for loop.

1
 2 2
 3 3 3
 4 4 4 4
 5 5 5 5 5

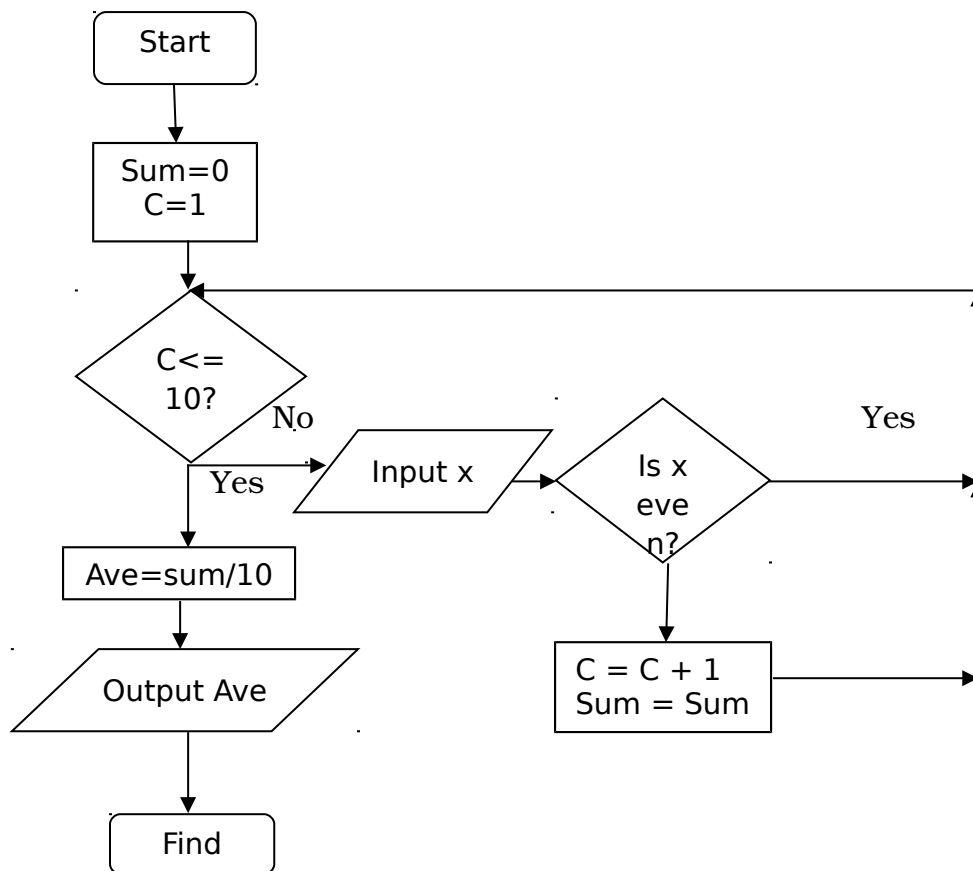
(5 Marks)

(c). Using flow chart distinguishes between do while loop and do loop while.

(5Marks)

Question FOUR

(a). Draw the diagram for the procedure and question as in the source. (7 marks)



(b). Explain any **THREE** mouse events as used in event driven programming.

(3 Marks)

(c). Explain the use of the following objects in Visual Basic Programmig:

(i). Inputbox

- (ii). MsgBox **(4 Marks)**
- (d). Explain the term 'Event Procedure'. **(2 Marks)**
- (e). Write Visual Basic statements to:
- (i). Declare an array to store names of 10 employees.
 - (ii). To output the message "Visual Basic" in immediate window.
- (4 Marks)**

Question FIVE

- (a). A petrol station cell regular, premium, and diesel brand of petrol at cost Ksh.71.35, Ksh.77.55 and Ksh.65.00 per liter respectively. The station also offers car wash services at Ksh.300. Write interactive event procedure in VB to prompt the pump attendant to input the type fuel, number of liters and whether or not the vehicle is to be washed. The procedure should calculate the total and output the result. **(10 Marks)**
- (b). Explain the term 'sentinel value'. **(2 Marks)**
- (c). Explain the following:
- (i). Boolean Operator
 - (ii). Relational Operator **(2 Marks)**
- (d). Write a Visual Basic code that will display 'The mean mark is 85' and 'The final Grade is A' on two separate lines on a MsgBox. **(2 Marks)**
- (e). Explain the **TWO** ways in which a variable can be declared in Visual Basic Programming. **(4 Marks)**