



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

Faculty of Engineering and Technology

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

**DIPLOMA IN TECHNOLOGY
DEPE, DCSE, DTIE, DEAE**

EEE 2257: PROGRAMMING & SOFTWARE ENGINEERING

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: OCTOBER 2011

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer booklet*

This paper consists of **FIVE** questions. Answer question **ONE (COMPULSORY)** in section **A** and any other **TWO** questions from section **B**

Maximum marks for each part of a question are clearly shown.

This paper consists of **THREE** printed pages
SECTION A (COMPULSORY)

Question 1

- a) Define the following terms
- i. Code
 - ii. Application
 - iii. Project
 - iv. Programming language
 - v. Consent
- (10 marks)
- b) Describe the following events while giving examples as used in VB programming
- i. Set focus ()
 - ii. Change ()
 - iii. Mouse over ()
 - iv. Key press
- (8 marks)
- c) State and explain the differences between a list box and a combo box controls (3 marks)
- d) State and explain the **THREE** steps of connecting a UB interface to a Ms. Access Database (9 marks)

SECTION B (Answer any TWO questions from this section - 20 marks each)

Question 2

- a) State the **THREE** main categories of control structures (3 marks)
- b) Explain giving examples in code the **THREE** categories of control structures in (2a) above (5 marks)
- c) Implementing the above control structures select suitable events in programs (9 marks)
- d) Explain the importance of loops in UB computer program (3 marks)

Question 3

- a) Explain the **TWO** ways of populating a combo box. Give examples in code (6 marks)
- b) Explain **FOUR** properties of menu controls (8 marks)
- c) Explain the differences between a function and a procedure as used in UB. Give examples (6 marks)

Question 4

- a) Write a VB program that executes to produce the following

- i. Sum of two numbers
 - ii. Product of two numbers
 - iii. Quotient of two numbers
 - iv. Remainder of a division of two numbers
 - v. Square of the sum of the two numbers
- (20 marks)

Question 5

- a) Write a while wend VB program that prints “VN programming ‘is fun’ 25 times on the debug window (6 marks)
- b) Explain the **THREE** ways of declaring variables in VB. Give examples (9 marks)
- c) State any **FIVE** rules applied when naming variables in VB (5 marks)