



TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN ELECTRICAL & ELECTRONIC
ENGINEERING

ICS 2276: COMPUTER PROGRAMMING II

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: MARCH 2014

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions. Attempt question **ONE** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

Question One (Compulsory)

a) Describe the usage of the following descriptions in FORTRAN programming:

- (i) The T format description (4 marks)
- (ii) The X format description (4 marks)
- (iii) The F format description (4 marks)
- (iv) The I format description (3 marks)

b) Define the following terms and give examples of each:

- (i) Value of a variable (3 marks)
 - (ii) Assigning a value (4 marks)
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- (iii) Intrinsic function
- (iv) External function

(4 marks)
(4 marks)

Question Two

Write a program to read manner of up to 50 students and each did five papers and print for each paper the number of students sitting it, the average mark and the difference between the marks got the average for each student. Ensure to use arrays, control structure and appropriate assignment operation. Also ensure comments are indicated in your source code. i.e. well documented. (20 marks)

Question Three

- a) Outline FIVE different application areas where programming is used to solve engineering problems: (14 marks)
- b) State the syntax for declaring a two dimensional array (2 marks)
- c) Describe scenario where it is appropriate to use a two dimensional array. (2 marks)
- d) State the TWO rules for arithmetic expression. (2 marks)

Question Four

Using the GOTO statement and appropriate blocks, write a program that prompt the user to key in two values and subsequently displays the same of the two values, the produce and the difference between the two values. The program should only exit after a specific input from the user on prompt. (20 marks)

Question Five

- a) Write brief notes of all the control structures used in programming. (16 marks)
- b) State the necessity of control structure i.e. elaborate on the use of control structures in programming context. (4 marks)