



TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR BACHELOR OF SCIENCE IN
INFORMATION TECHNOLOGY
(BSIT)

ICS 2104/BIT 2203: ADVANCED OBJECT ORIENTED PROGRAMMING

END OF SEMESTER EXAMINATION

SERIES: APRIL 2013

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) Distinguish between the following using an example;
- (i) Inheritance
 - (ii) Polymorphism
 - (iii) Encapsulation
 - (iv) Data hiding (16 marks)
- b) Briefly explain the following terms as used in programming:
- (i) Container
 - (ii) Constructor (4 marks)
- c) State any **FOUR** member method of the frame class (4 marks)

d) State any **SIX** subclasses of the java swing package

(6 marks)

Question Two

a) Write a GUI application with the following layout

(20 marks)

CANCEL

Question Three

Write a program in java with two functions max and swap. Max takes in two parameters and gives the largest value while swap take in two parameters and exchange their memory location. The program should have GUI to prompt the user to enter the two values comment on your program. **(20 marks)**

Question Four

When ordering new videotape from a supplier, the store manager creates a purchase order, fills in the date, the supplier's name, address and enter a list of videotape to be ordered. The purchase ordered is added to a permanent list of purchases. When one or more tape are received from a supplier, a clerk locates the original purchase order and make a record of each tape that was received. A record of videotape is then added to the store's inventory. When all tapes listed on a particular purchase order have been received, the manager sends a payment to the supplier and the purchase order is given a completion date. Define the classes and their method from this illustration. **(20 marks)**

Question Five

Write a GUI program in java that will ask a user to input any two numbers which are passed to a parameter in a function called max that define the largest of the numbers and prints it to the output. **(20 marks)**