KABARAK   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

2010/2011 ACADEMIC YEAR

FOR THE DEGREE OF BACHELOR OF COMPUTER SCIENCE

COURSE CODE: COMP 326

COURSE TITLE: OBJECT ORIENTED PROGRAMMING
WITH JAVA

STREAM: Y3S2

DAY: WEDNESDAY

TIME: 2.00 – 4.00 P.M.

DATE: 16/03/2011

INSTRUCTIONS:
1. Section A is compulsory and has 30 marks.
2. Attempt any TWO questions from Section B. Each question has 20 marks.

PLEASE TURN OVER

SECTION A

QUESTION 1 (30 MARKS)

a) As a young programmer what is an interface in java programming? Explain any three different interfaces used in java programming? (5 marks)

b) As a software engineer at Kabarak what were the five primary goals in the creation of the Java language (5 marks)

c) Write a basic java program and briefly explain the basic structure and the fundamental elements of any java program. (5 marks)

d) What is an access modifier? Explain the basic class access modifiers that can be implemented in any java program (5 marks)

e) Just like any other programming language java has several types of events that can happen in a Java program. As an expert in java explain any five events used in java. (5 marks)

f) With the help of a java code example explain the use of the FOR loop as used in java programming (5 marks)

SECTION B

QUESTION 2 (20 MARKS)

a) In relation to java explain the following: (4 marks)
   (i) Polymorphism
   (ii) Encapsulation.

b) What is the difference between java and java script. (4 marks)

c) Write a java program that will show the use of: *if, else and else if statements* together. (4 marks)

d) Explain the different types of comments that can be used in a java program. (4 marks)

e) What is a frame in java? Explain any two frame class methods. (4 marks)

QUESTION 3 (20 MARKS)

a) Write short notes on the following: (4 marks)
   (i) Accessor methods
   (ii) Mutator methods

b) What are exceptions in java? Explain any two different types of exceptions in java. (4 marks)

c) Write a java program to find the simple interest. (4 marks)

d) Briefly explain inheritance in java programming. (4 marks)

e) As a programmer explain briefly the history of java as a programming language. (4 marks)

QUESTION 4 (20 MARKS)

a) With java a programmer can not assume the use of packages in the program. Define is a java package and explain any four different java packages (4 marks)

b) Write a java program to find the greatest number out of any given three. (4 marks)

c) Explain in details the importance of java as a programming language.

(4 marks)

d) Explain the output of the following java program. (4 marks)

```
Class EndlessForLoop
    {
      public static void main(String[] args)
    {
        for(int a = 10; a > 5; a++)
          {
          System.out.println(a);
          }
    }
    }
```

e) Explain the different types of applets class methods used in java. (4 marks)

QUESTION 5 (20 MARKS)

a) When writing java programs identify any four rules one need to consider in naming variables (4 marks)

b) Write a java program to add the elements of a 3x2 matrix. (4 marks)

c) With the help of a code example explain how a programmer canbreak out of a loop when it is still running. (4 marks)

d) Explain any two different methods used to import packages in java.

(4 marks)

e) What is a string? Explain any three string functions and there use in java programming. (4 marks)