

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2015/2016**

**YEAR II SEMESTER II EXAMINATION FOR THE DEGREE OF BACHELOR INFORMATION TECHNOLOGY**

**BIT 2203: ADVANCED PROGRAMMING**

**DATE:DECEMBER 2015 TIME: 2 HOURS**

**INSRUCTIONS:** Answer question one and any other two questions.

QUESTION ONE

a. Explain the cons and pros of swings components over ANT (abstract windows toolkit)

(4 marks)

b. Explain the two types of objects that are useful when dealing with RM1. (6 marks)

c. Explain the different types of variables found in java and using examples show how they are declared. (4 marks)

d. Write a program to reads in a radius (r) and display the

i. Area of the circle Jr2 (3 marks)

ii. Circumference and the circle 2πr. (3 marks)

Use pi(π)=3.14.

e. Explain the following features of java (6 marks)

i. Java runtime environment (JRE)

ii. Java development kit (JDK)

iii. Java virtual machine (JVM)

f. Write a java code that implements for loop control structures. (4 marks)

QUESTION TWO

a. Explain the three types of exception found in Java. (4 marks)

b. Write a java program that accepts tow values and output the sum of the two implement this using scanner. (5 marks)

c. Discus the advantages of RMI (Remote method invocation) (6 marks)

d. Explain any data structures found in Java. (5 marks)

QUESTION THREE

a. Explain the following data type

i. primitive

ii. non primitive.

b. Explain the following terms.

i. ODBC

ii. JDBC (6 marks)

c. Explain the prepared statements and callable statements. (4 marks)

d. Write a java program that implement if else control structures. (6 marks)

QUESTION FOUR

a. Explain various JABC ?? (8 marks)

b. Discuss the targets characteristic of java beans . (6 marks)

c. Describe the various types of application servers in common use today.

(6 marks)

QUESTION FIVE

a. Describe the types of application that can be created using java. (6 marks)

b. Write a java program that allows the use to key in a number between 1 and 7 and the output the corresponding day and the week. (6 marks)

c. Explain the following type of errors

i. routine error

ii. Syntax error

iii. logical error. (6 marks)

d. Explain the function of garbage collection. (2 marks)