

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

## JOMO KENYATTA UNIVERSITY

**OF**

**AGRICULTURE AND TECHNOLOGY**

# University Examinations 2014/2015

**YEAR III SEMESTER I EXAMINATION FOR THE DEGREE OF BACHELOR OF BUSINESS INFORMATION TECHNOLOGY**

**BIT 2203: ADVNACED PROGRAMMING**

**DATE: APRIL 2015 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND**

**ANY OTHER TWO QUESTIONS.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**QUESTION ONE (30 MARKS)**

(a) Discuss the difference between swing and Abstract Windows Toolkit (AWT) (4 marks)

(b) With a help of a diagram describe java script (JSP) request model.(6 marks)

(c) Explain the role of stubs and skeleton in RMI (Remote Method

Invocation) (5 marks)

(d) Explain the following collection interfaces. (3 marks)

i) Set

ii) List

iii) Mop

(e) Explain the three types of exception that exist in Java. (6 marks)

(f) Write a java program that prints your name a hundred times.

Do this using:

i) While loop

ii) Do while loop

iii) for loop

**QUESTION TWO (20 MARKS)**

(a) Write a java program that accept three grades form the user and compute the average of the grades. Output the average of the three exams. Output if the average is greater than or equal to 60. Otherwise output:

i) Use Buffered Reader to got input from the user and system out to output the result. (4 marks)

ii) Use JoptionpPare to got input form the user and to output

the result. (4 marks)

(b) Given the failing of the existing components model. Outline and discuss the targeted characteristics of Java beans. (6 marks)

(c) Discuss the importance of java components model. (6 marks)

**QUESTION THREE (20 MARKS)**

(a) Describe the following three bean types provided by Enterprises

JavaBeans: (8 marks)

i) Stateless Session Beans

ii) Stateful Session Beans

iii) Entity Beans

(b) Discuss the importance of RMI (Remote Method Invocation) (6 marks)

(c) Describe how Event Listeners are named. (4 marks)

**QUESTION FOUR (20 MARKS)**

(a) Since the release of the JOBC API a number of JBC drivers have been developed these drivers provide varying levels of capability. Discuss the four types of JDBC drivers as classified by JavaSoft. (10 marks)

(b) Explain the following: (5 marks)

i) Codd’s rules

ii) Obms function

iii) Remote Method Invocation (RMI)

iv) Event handling

(c) Write a java program that output the average of three numbers. Let the values of the three number b0, 10, 20 and 45. (5 marks)

**QUESTION FIVE (20 MARKS)**

(a) Explain the following terms: (8 marks)

i) Enterprise JavaBeans (EJB) technology

ii) Container

iii) Java Virtual Machine (JVM)

iv) Java Runtime Environment (JRE)

(b) Describe the three layers that support interface in java RMI.(6 marks)

(c) i) Explain how distributed object model is similar to the

Java Object Model. (3 marks)

ii) Explain how distributed model differ form the java

object model. (3 marks)