



KENYA METHODIST UNIVERSITY

END OF 2ND TRIMESTER 2010 EXAMINATIONS

FACULTY : **SCIENCE AND TECHNOLOGY**
DEPARTMENT : **COMPUTER SCIENCE & BUSINESS INFORMATION**
UNIT CODE : **CISY 213**
UNIT TITLE : **ADVANCED PROGRAMMING**
TIME : **2 HOURS**

Instructions:

Answer ALL questions in Section A and any other TWO questions in Section B.

Section A

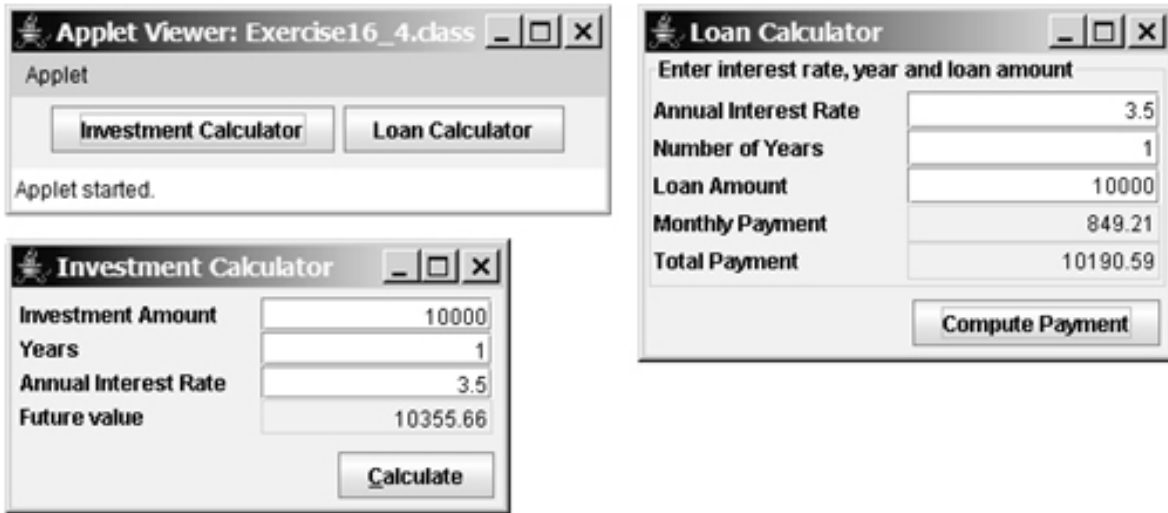
Question One (30 Marks)

1. Explain the difference between AWT GUI components and Swing components. (3 mks)
2. Describe BorderLayout. How do you create a BorderLayout manager? How do you add a component to a BorderLayout container? (5 mks)
3. Describe the lifecycle of an Applet. (4 mks)
4. What are the differences between a server socket and a client socket? (4 mks)
5. List any four classes that Java provides that implement menus. (4 mks)
6. Briefly describe how a JDBC application sends and retrieves data from a database. N.B. include all the appropriate classes required. (4 mks)
7. Define RMI and what is its importance in a networked environment? (3 mks)
8. Describe the relationship between an event, listener handler and listener methods. (3 mks)

Section B (30 Marks)

Question One (15 Marks)

- i. Write an applet that contains two buttons called Investment Calculator and Loan Calculator. When you click Investment Calculator, a frame appears in a new window for calculating future investment values. When you click Loan Calculator, a frame appears in a separate new window for computing loan payments as in figure below.(15mks)



Question Two (15 Marks)

- i. Write a Java application that inserts the following data into a database. (12 mks)

Employee Details	
Employee Name	<input type="text"/>
Employee No.	<input type="text"/>
Department	<input type="text"/>
Position	<input type="text"/>
	<input type="button" value="Submit"/>
	<input type="button" value="Reset"/>

- ii. Determine whether each statement is true or false. If false, explain why. (3 mks)
 - a. BorderLayout is the default layout manager for a JFrame's content pane.
 - b. Most Swing GUI components are located in package javax.swing.
 - c. When building a GUI, each GUI component must be attached to a container, such as a window created with a JFrame.

Question Three (15 Marks)

- i. Write a program of your choice to demonstrate the KeyListener interface. (9 mks)
- ii. Describe three types of graphical games one can create in java. (6 mks)