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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2014/2015

COURSE NAME	:	VISUAL PROGRAMMING
COURSE CODE	:	BIE 20404
PROGRAMME	:	2 BIE
EXAMINATION DATE	:	JUNE 2015 / JULY 2015
DURATION	:	2 HOURS AND 30 MINUTES
INSTRUCTION	:	A) ANSWER **ALL** QUESTIONS
		B) PLEASE WRITE YOUR ANSWERS IN THIS QUESTION BOOKLET

THIS QUESTION PAPER CONSISTS OF **ELEVEN (11)** PAGES

Q1 (a) Define about interface in polymorphism concept.

(4 marks)

Answer:

(b) Compare **TWO (2)** differences between abstract class and interface.

(8 marks)

Answer:

2

(c)   Question **Q1(c)(i)-Q1(c)(ii)** are based on **Figure Q1**.

```
public interface KeyListener
{
        public void keyPressed(KeyEvent e);
        public void keyReleased(KeyEvent e);
        public void keyTyped(KeyEvent e);
}
```

FIGURE Q1

(i)   Explain about the codes in **Figure Q1**.

(8 marks)

Answer:

(ii)   Rewrite the implementation of any **ONE (1)** abstract methods in
Figure Q1 with appropriate example.

(4 marks)

Answer:

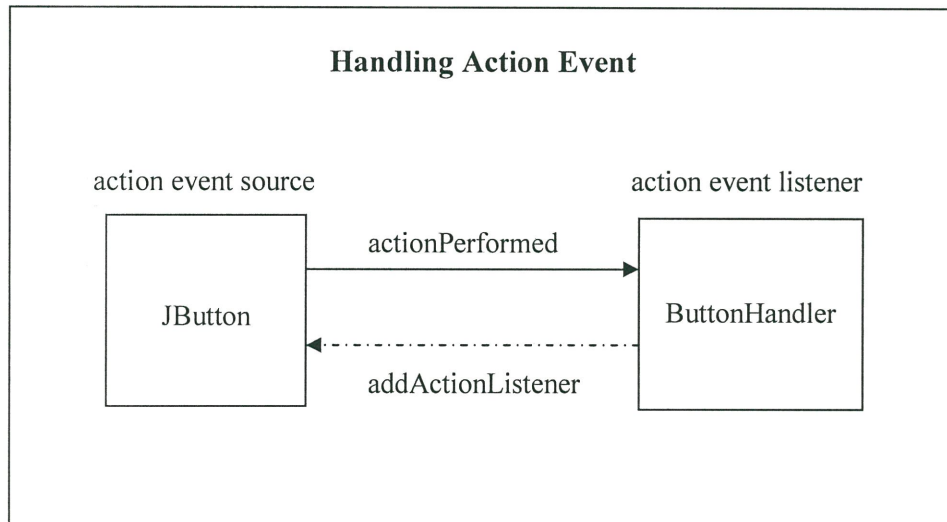**Q2** (a) Question **Q2(a)(i)-Q2(a)(iv)** are based on **Figure Q2**.

FIGURE Q2

(i) List **TWO (2)** user interactions that can generate an action event.

(4 marks)

Answer:

(ii) Explain about event handling.

(8 marks)

Answer:

(iii)   Construct Java codes that declare action event source (`JButton`), action event listener (`ButtonHandler`) and their relation using `addActionListener` method.

(6 marks)

Answer:

(iv)   Construct Java codes for implementing `actionPerformed()` method based on declaration in **Q2(a)(iii)**.

(8 marks)

Answer:

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(b)   Compare the difference between FlowLayout, BorderLayout and GridLayout Managers using appropriate diagrams.

(12 marks)

Answer:

Q3   Answer the following questions based on **Figure Q3**.

```java
try
{
    int x = 0;
    int y = 5 / x;
}
catch (Exception e)
{
    System.out.println("Exception");
}
catch (ArithmeticException ae)
{
    System.out.println(" Arithmetic Exception");
}
System.out.println("finished");
```

FIGURE Q3

(a)   Identify the output of the program in **Figure Q3**.

(2 marks)

Answer:

(b)   Justify your answer given in **Q3 (a)**.

(4 marks)

Answer:

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(c)   Explain the difference between validation, exception and error.

(6 marks)

Answer:

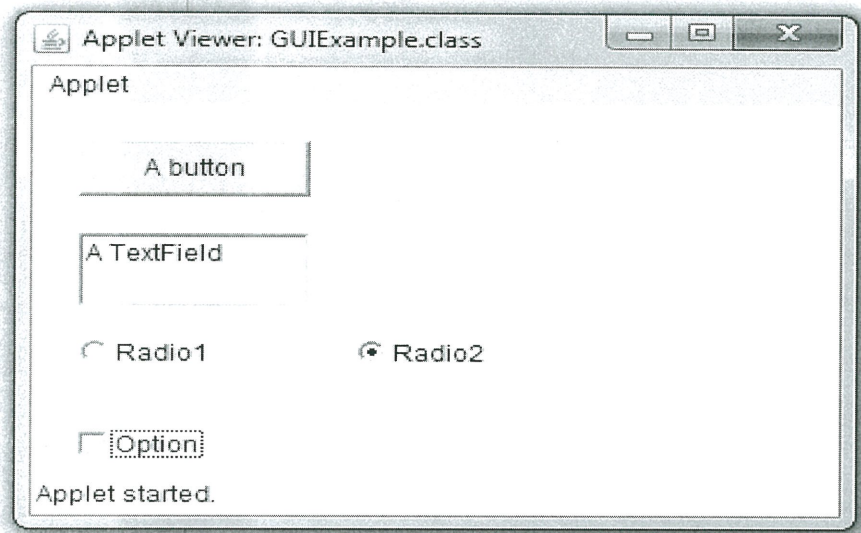**Q4**   Given the following **Figure Q4**.

FIGURE Q4

Construct an applet program in Java that apply all the GUI components depicted in **Figure Q4**. Use the following hints to accomplish the program codes.

i.   Use appropriate class name for the program.
ii.   Modify the GUI display with appropriate names.

(10 marks)

Answer:

-END OF QUESTION-