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Question Paper Code: 59801

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Elective

Information Technology

15UIT901- PROGRAMMING PARADIGMS

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. Providing access to an object only through its member functions, while keeping the details private is called CO1- R
(a) Information hiding (b) Encapsulation (c) Modularity (d) Inheritance
2. In python a string is appended to another string by using which operator. CO2- R
(a) + (b)* (c)[] (d) +=
3. What will be the result of compiling and running the following code? CO3- R

```
import java.awt.*;
import java.applet.*;
public class Test extends Applet {
Label l = new Label("Hello");
public void init()
{
setSize(200,100);
setVisible(true);
l.setBackground(new Color(0,100,180));
setLayout(new GridLayout(1,1));
add(l);
setLayout(new FlowLayout());
```

```
l.setBounds(0,0,100,24);  
}
```

- (a) The label will fill half the display area of the applet.
- (b) The label will be wide enough to display the “Hello”
- (c) The label will not be visible.
- (d) The label will fill entire display area of the applet

4. The two subclasses of Throwable are CO4- R

- (a) Error and AssertionError (b) Error and Exception
- (c) Checked and Unchecked Exception (d) Error and Runtime Exception

5. Which type of exception does a join() method throw? CO5- R

- (a) Arithmetic Exception (b) Null Pointer Exception
- (c) Array Index Out Of Bounds Exception (d) Interrupted Exception

PART – B (5 x 3= 15Marks)

- 6. What do you mean by instance variable? CO1- R
- 7. What is DoJo? CO2- R
- 8. List the steps needed to show a frame. CO3- R
- 9. What is an exception? CO4- R
- 10. Brief about Executors class. CO5- R

PART – C (5 x 16= 80Marks)

11. (a) Develop an abstract Class Polygon from which Triangle and Rectangle are derived. Each Polygon should contain the function Area() to calculate the area of them. Invoke appropriate Area() function to calculate the area using pointer to base class and pointers to derived classes. CO1- App (16)

Or

- (b) (i) Compare interfaces and abstract classes. CO1- App (8)
- (ii) Illustrate dynamic binding with an example. CO1- App (8)

12. (a) What is Python list? Explain the basic list operations with suitable examples CO2- U (16)

Or

(b) Compare and contrast J2EE framework with .NET framework CO2- Ana (16)

13. (a) Explain AWT Event Handler in detail with example. CO3 - U (16)

Or

(b) Describe the types of layout management and swing components briefly. CO3-U (16)

14. (a) Explain the generic classes and generic methods with example. CO4- U (16)

Or

(b) Explain briefly about user defined exceptions and stack trace elements in exception handling mechanisms. CO4- U (16)

15. (a) What are interrupting threads? Explain thread states and synchronization. CO5- U (16)

Or

(b) Discuss thread safe collections briefly. Write a simple multi threaded program for readers writers problem. CO5- Ana (16)

