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Total Number of Pages: 03

B.TECH
PCIT4303

5th Semester Regular / Back Examination 2015-16

JAVA PROGRAMMING

BRANCH(S): CSE,IT

Time: 3 Hours

Max marks: 70

Q.CODE: T375

Answer Question No.1 which is compulsory and any five from the rest.

The figures in the right hand margin indicate marks.

Q1 Answer the following: (2 x 10)

- a) What is default handler and how it differs from Exception handler?
- b) What is Thread priority and mention its range in java? Write the name and proper signature of the method used to set priority of thread in java?
- c) What is Modifiers? How many types of modifiers are available in java and describe them briefly?
- d) What is Package? Describe the various purpose for which package is created?
- e) What is inner class? How it differs from nested classes?
- f) What is the datatype of output of regionMatches() method of java? Write the use and proper signature of above mentioned method with example?
- g) What is the output of the following program with justification?

```
public class Test
{
    public static void main(String args[])
    {
        float x;
        int y=3,a=5;
        x=a+y/2;
        System.out.println("x=",+x);
    }
}
```

- h) What is the output of the following program with justification?

```
public class A
{
    void A()
    {
        System.out.println("Class A");
    }
    public static void main(String[] args)
    {
        new A();
    }
}
```

- i) Write the condition in which OUTPUT will be A&&B? Justify your answer?

```
public void foo( boolean a, boolean b)
{
    if( a )
    {
        System.out.println("A");
    }
    else if(a && b)
    {
        System.out.println( "A && B");
    }
    else {
        if ( !b )
        {
            System.out.println( "notB" ) ;
        }
        else
        {
            System.out.println( "ELSE" ) ;
        }
    }
}
```

- j) What is the output of the following program with justification?

```
class Base
{
    Base()
    {
        System.out.print("Base");
    }
}
public class Alpha extends Base
{
    public static void main(String[] args)
    {
        new Alpha(); /* Line 12 */
        new Base(); /* Line 13 */
    }
}
```

- Q2** What is Deadlock? Explain how Deadlock occurs and how it can be resolved using suitable java program? **(10)**
- Q3** Write a java program to implement queue having following functions **(10)**
- insert
 - remove
 - Peek
 - Check empty
 - Check full
 - Check size
- Q4 a)** Write a java program to implement quick sort? **(5)**
- b)** Write a java program to findoutsuareroot of any no without using any built in function like sqrt,powetc? **(5)**

- Q5** a) Write a java program to move a ball of size 100*100 from coordinate (0,400) using applet program? (5)
- b) What is polymorphism? Explain how overloading is a technique to implement polymorphism? Write a java program to findout area of rectangle,square and circleusing method overloading and constructor overloading? (5)
- Q6** a) What is Exception and Exception Handling?Exception are subclass of which class? (5)
Write a java program to create your own exception which create insufficient fund Exception whenever any account holder in bank want to withdraw money greater than than what he have in his account?
- b) Define Multilevel inheritance and Interface? How multilevel inheritance is used in interface?Write a java program to findout cost ,weight and volume of a box using multilevel inheritance in interfaces ? (5)
- Q7** a) What is the difference between string and string Buffer? Write a java program to find multiplication,modulus and division of two numbers using command line arguments? (5)
- b) Write a java program to find GCD and LCM of two numbers using package? (5)
- Q8** **Short Notes on any Two** (5 x 2)
- a) Life cycle method of applet
- b) AWT Hierarchy
- c) Diffrence between Abstract class and interface
- d) Container