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Total Number of Pages: 02

B.Tech
PCS31102

3rd Semester Regular/Back Examination 2017-18
OBJECT ORIENTED PROGRAMMING USING JAVA

BRANCH: CSE

Time: 3 Hours

Max Marks: 100

Q.CODE : B1196

Answer Question No.1 and 2 which are compulsory and any four from the rest.
The figures in the right hand margin indicate marks.

Q1 Answer the following questions: *multiple type or dash fill up type* (2 x 10)

- a) The output of the following program is _____
- ```
// filename Main.java
class Main {
 public static void main(String args[]) {
 System.out.println(fun());
 }
 int fun() {
 return 20;
 }
}
```
- a) 20  
b) compilation error  
c) run time error  
d) None of the above
- b) Pointers are eliminated from java because \_\_\_\_\_.  
a) Pointer lead to confusion for a programmer  
b) Pointers may crash a program easily  
c) Pointers break security  
d) All of the above
- c) Java supports all types of inheritance except \_\_\_\_\_.  
a) Single inheritance  
b) Multiple inheritance  
c) Multi-level inheritance  
d) Hierarchical inheritance  
e) Multiple inheritance
- d) If a number is in string, to convert it into integer \_\_\_\_\_ method is used.
- e) Stream can be used for \_\_\_\_\_.  
a) To receive data from input device  
b) Send data to an output device  
c) Both i and ii  
d) None of the above
- f) \_\_\_\_\_ thread always runs in a Java program by default.  
a) main thread b) daemon thread c) default thread d) All of the above
- g) AWT stands for \_\_\_\_\_.  
a) Any Window Toolkit  
b) Application Window Toolkit  
c) Abstract Window Toolkit  
d) Abstract Writing ToolKit
- h) \_\_\_\_\_ is an inner class whose name is not mentioned, and for which only one object is created.
- i) Which of these functions is called to display the output of an applet?  
a) display()  
b) print()  
c) displayApplet()  
d) printApplet()

- j) Which of these method is used to find out that a thread is still running or not?
- run()
  - Alive()
  - isAlive()
  - checkRun()

**Q2 Answer the following questions: Short answer type (2x10)**

- What is JVM?
- What do you mean my portability of a program? Is java language portable? If yes, Justify your answer.
- Name the access specifies not used with interface. Justify your answer.
- Differentiate between method overloading and Overriding.
- Define Wrapper class.
- Difference between throw and throws
- What is the difference between an Applet and a Java Application?
- What is an Event
- How can we extract integer, float, double value from string. Write syntax with example.
- What are the two uses of keyword super in Java.

**Q3 a) List the features of Java. Briefly explain each features with example. (10)**

- b) Write a program in Java to implement the following: (5)**  
Create a function allUnique() that takes an integer array as input and returns true if all the integers in the array are unique, otherwise for any repetition it returns false.

**Q4 a) Write a program to find out the area of rectangle and perimeter of rectangle and square using method overriding and also call the overridden method using dynamic method dispatch and use abstract class as base class. (10)**

- b) What are the differences between package and interface? (5)**

**Q5 a) Compare String with StringBuffer. Also write a program to count occurrence of character in a string. (10)**

- b) Explain exception handling in JAVA. Write a program that generates custom exception if any integer value given from its command line arguments is negative. (5)**

**Q6 a) What is super keyword and why it is used? Write a java program to find out cost, weight and volume of a box using multilevel inheritance and use super keyword at proper places? (10)**

- b) Write a program in Java to read a file and count the number of occurrence of digit 5. Supply the file name as command line argument. (5)**

**Q7 a) What is multithreading? What are the priorities give for multithreading? Explain advantages of multithreading (10)**

- b) What is a thread? Draw and explain life cycle of a thread. (5)**

**Q8 a) Write a program using java swing to create a push button and a progress bar, such that every time, the button is clicked by the user the progress bar progresses by 5 units. (10)**

- b) Explain how applet will communicate with each other. (5)**

**Q9 a) Write short notes on any TWO : (10)**

- Event handling mechanism
  - Inner Class
  - Scanner class Vs Buffered Reader class
- b) Write the difference between AWT and swing. Explain with example. (5)**