



## PES University, Bengaluru (Established under Karnataka Act 16 of 2013)

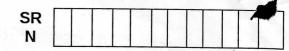
UE14CS151

JULY 2016: SUMMER TERM END SEMESTER ASSESSMENT (ESA) B. TECH. II SEMESTER

UE14CS151 Computer Science 2(CS2)

Theme: Object Oriented Programming in Java

ime	e:3Hrs	Answer All Questions Max Marks:	: 100
1.	a)	Mention and write a line about 8 built-in primitive data types available in java with one example.	8
	b)	Write the output for the following program. If there are errors in the program , specify the error and correct the errors.  public class Test { final int a=10; public static void main(String args[]) { System.out.println(a); }}	5
-	c)	How does Java treat uninitialized variable  I) within a method  II) within a class (field)	4
	d)	Write any major rules for writing class names in java. Write simple structure of a java program.	3(2+1)
2	a)	What is overloading of methods? How does the compiler find which method to call? Write one example program for method overloading.	6 (2+2+2
	b)	Assume that the variables x, y, z are of int type and have been initialized to 10, 20, 30 respectively. State what happens in the following cases.  i) $x = y++$ ; what is the value of x?  ii) System.out.println(x > y > z);  iii) System.out.println(x > y);iv) System.out.println(x === y);	8 (2*4)
	c)	Complete the following java program to get the below mentioned output.  import java.io.*;  public class Employee{     public String name;     private double salary;     public Employee (String empName){         name = empName;}  public void setSalary(double empSal){         salary = empSal;}  public void printEmp(){         System.out.println("name : " + name );         System.out.println("salary :" + salary);     }  public static void main(String args[]){         //todo         //todo         //todo      } }  OUTPUT:  name: hello	6
3.	a)	Write a java program that assigns a grade based on the value of a test score:  i) Testscore is a user input from the standard input device keyboard  ii) assign an A for a score of 90% or above, a B for a score of 80% or above, a C for a score of 70% or above, D for a score of 60% or above.	8M
	b)	Write expressions for the following.  i) (-b + sqrt(b <sup>2</sup> - 4ac) / (2a)   II) 4/3 Pl r <sup>3</sup>	4



	c)	Write any 2 major difference between for,dowhile and while looping constructs .Write the single java program which includes all the three loops and prints the follwing output.  For Loop: 0  For Loop: 1  For Loop: 2	8
		For Loop : 3 For Loop : 4	
		While Loop: 0 While Loop: 1 While Loop: 2 While Loop: 3 While Loop: 4	
		Do While Loop: 0 Do While Loop: 1 Do While Loop: 2 Do While Loop: 3 Do While Loop: 4	
4	a)	Yes/No?with justification.  i)Array is a container object that hold values of homogenous type — ii)Can you pass the negative number as an array size? iii)Can you insert or delete the elements after creating an array? iv)int[] a and int a[],Both are the legal methods to declare the arrays in java.  v)There are two array objects of int type. one is containing 100 elements and another one is containing 10 elements. Can you assign array of 100 elements to an array of 10 elements?	10
	b)	Fill the details to get the below mentioned output.  public class CrunchifyEnumExample {     public enum Company {         EBAY(30), PAYPAL(10), GOOGLE(15), YAHOO(20), ATT(25);         private int value;          //TODO         }         public static void main(String[] args) {         //TODO          //TODO          //TODO          //TODO          //TODO          }}   OUTPUT:  Company Value: 30 - Comapny Name: EBAY  Company Value: 10 - Comapny Name: PAYPAL  Company Value: 15 - Comapny Name: GOOGLE  Company Value: 20 - Comapny Name: YAHOO  Company Value: 25 - Comapny Name: ATT	10
5.		Write the output for the following code snippet. import java.util.*; public class TestCollection8 { public static void main(String args[]) {    ArrayList <string> al=new ArrayList<string>();    al.add("Amit");    al.add("Vijay");    al.add("Kumar");</string></string>	3

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- , , , ,	al.add(1,"Sachin");	
	System.out.println("element: "+al.get(2)); }	
b)	<pre>Write the output for the following code. public class ExcepTest{   public static void main(String args[]){     int a[] = new int[2];     try{         System.out.println("Access element three :" + a[3]);     }catch(ArrayIndexOutOfBoundsException e){         System.out.println("Exception thrown :" + e); }</pre>	5
	<pre>finally{     a[0] = 6;     System.out.println("First element value: " +a[0]);     System.out.println("The finally statement is executed"); }}</pre>	
c)	Write a line about the following a)explicit vs implicit typecasting in java b)multiple inheritance in java	8
d)	"Strings are immutable in java".Justify with one example.	
		4