

Semester: August 2021 - November 2021 Examination: In Semester Examination		
Programme code: 01 Programme: B.Tech Computer Engineering	Class: SY	Semester: III (SVU 2020)
Name of the Constituent College: K. J. Somaiya College of Engineering	Name of the department: COMP	
Course Code: 116U01C304	Name of the Course: Object Oriented Programming Methodology	

Question No.		Max. Marks
Q1	Objective	10 marks
	1. What will be the output of the following code? <pre> 1 public class circles 2 { 3 public static void main (String[] args) 4 { 5 int [] ia={1,3,5,7,9}; 6 for (int x : ia) 7 { 8 for(int j=0;j<3;j++) 9 { 10 if(x>4 && x<8) continue; 11 System.out.print (" "+ x); 12 if(j==1) break; 13 } 14 continue; 15 } 16 } 17 } 18 }</pre> a) 1 3 9 b) 5 5 7 7 c) 1 1 3 3 9 9 d) 1 1 1 3 3 3 9 9 9	02
	2. What will be the output of the following code?	02

```

1  class one { }
2  class two
3  { static one b1;
4    one b2;
5  }
6  }
7  public class Tester
8  {
9      public static void main(String[] args)
10 { one b1 = new one();
11   one b2 = new one();
12   two a1 = new two();
13   two a2 = new two();
14   a1.b1 = b1;
15   a1.b2 = b1;
16   a2.b2 = b2;
17   a1 = null;
18   b1 = null;
19   b2 = null;
20   // do stuff
21 }
22 }

```

When line 16 is reached, how many objects will be eligible for garbage collection?

- a) 0
- b) 1
- c) 2
- d) 3

3. What will be output of following code?

01

```

1 public class Example1{
2     public static void main(String []args){
3         String s1 = new String("amit");
4         String s2 = s1.replace('m','i');
5         s1.concat("Poddar");
6         System.out.println(s1);
7         System.out.println((s1+s2).charAt(5));
8     }
9 }

```

- a) Compile error
- b) amitPoddar
- o
- c) amitPoddar
- i
- d) amit
- i

4. Which of the following is a valid declaration of an object of class, say Foo?

01

- a) Foo obj = new Foo;
- b) obj = new Foo;
- c) Foo obj = new Foo();
- d) New Foo obj;

5. What will be the output of the following code?

02

	<pre> 1 public class xyz 2 { 3 static int x=7; 4 public static void main (String[] args) { 5 String s=""; 6 for(int y=0;y<3;y++) 7 { 8 x++; 9 switch(x) 10 { 11 case 8: s+="8"; 12 case 9: s+="9"; 13 case 10: { s+="10";break;} 14 default: s+="d"; 15 case 13 : s+= "13"; 16 } 17 } 18 System.out.println(s); 19 } 20 } 21 static{x++;} 22 }</pre>		
	<p>a) 9 10 d b) 8 9 10 d c) 9 10 10 d d) 9 10 10 d 13</p>		
	<p>6. Which of the following statement(s) is/are true? (i) A static method can call other non-static methods in same class using this keyword (ii) A class may contain both static and non-static variables and both static and non-static methods (iii) Each object of a class has its own instance of each static variable (iv) The instance methods may access local variables of static methods a) (i) only b) (ii) only c) (i),(iii) d) (i) and (iv)</p>	01	
	<p>7. Which of the following options leads to the portability and security of Java? a) Bytecode is executed by JVM b) The applet makes the Java code secure and portable c) Use of exception handling d) Dynamic binding between objects</p>	01	
Q.2 (A)	<p>a) Explain significance of vectors over array of objects with example. b) Difference between final and finalize keywords.</p>	05M 05 M	
Q 3	<p>Write a program to store shopping items (Item_No, Item_Name, Item_Price) in vector. Accept 5 items from user and store it in the created vector which should also provide following functions: a. Add the item in the vector b. Remove item from the vector</p>	10 M	

- c. Insert item at specific index
- d. Convert vector to array and display array elements
- e. Display Vector using Iterator/Enumeration interface

OR

Write a program to check if a String is valid shuffle of two Strings.

Example: first = "abc" Second = "def", third = "dabecf" is a valid shuffle. (String is case sensitive).(5M)

Write a program to display the following pattern using the concept of Jagged Array. (5M)

0

1 2

3 4 5

6 7 8 9

10 11 12 13 14