

**POSSESSION OF MOBILE IN EXAMINATION IS A UFM PRACTICE**

Name of Student ----- Enrolment No. -----

Department -----

**BENNETT UNIVERSITY, GREATER NOIDA**

**End Term Examination, SPRING SEMESTER 2017-18**

COURSE CODE: **ECSE102L**

MAX. DURATION: **Two HOURS**

COURSE NAME: **Object Oriented Programming Using Java**

COURSE CREDIT: **SIX**

MAX. MARKS: **30**

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- All the questions are compulsory.

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**Question 1) Write a java program considering the following scenario**

**Marks 6**

You are a team leader who is going to build a project on Bennett Laundry System. You have 3 team members, who are going to work for you and implement individual modules of the project. You and team members must maintain the confidentiality. Team member should hide the module from each other. The three members must implement following methods:

1. Member A: void collect(), void organize() (Class Name is 'A')
2. Member B: void wash(), void press() (Class Name is 'B')
3. Member C: void arrange(), void distribute (Class Name is 'C')

All these functions should be called from the **main method** of **BennettLaundrySystem** Class

**Note: Only structure of the code needs to be implemented. No need to write any logic.**

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**Question 2) Explain the following terms (Any 6)**

**Marks 6**

1. Method overloading
  2. Method overriding
  3. Throw
  4. Throws
  5. Final Keyword
  6. Servlet Life cycle
  7. Role of web.xml in servlet creation
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**Question 3) Write the output of the following codes:**

**Marks 4**

<p><b>3.1</b></p> <pre> interface A{ int i=5; public void method();}  class One implements A{ int i=6; public void method(){          System.out.println("Class One method");}} class Two extends One{ int i=7;         public void method(){                  System.out.println("Class Two method");}} class Test extends Two{         public static void main(String[] args){                 One a = new Two();                 a.method(); System.out.println(a.i);         }}</pre>	<p><b>3.2</b></p> <pre> class A {         System.out.println(1); } class B extends A {System.out.println(2); } class C extends B {System.out.println(3); } public class Abc {         public static void main(String[] args)         {                 C c = new C();         }}</pre>
<p><b>3.3</b></p> <pre> class A {         String s = "Class A"; } class B extends A {         String s = "Class B"; {  System.out.println(super.s); } } class C extends B {         String s = "Class C"; {  System.out.println(super.s); }} public class Abc {         public static void main(String[] args)         {                 C c = new C(); System.out.println(c.s);         }}</pre>	<p><b>3.4</b></p> <pre> class Base{         int value = 0;         Base(){                 addValue();         }         void addValue(){                 value += 10;         }         int getValue(){                 return value;         } } class Derived extends Base{         Derived(){                 addValue();         }         void addValue(){                 value += 20;         } } class abc{         public static void main(String[] args){                 Base b = new Derived();                  System.out.println(b.getValue()) ;         }}</pre>

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**Question 4)** Which of the following statements are true or false

**Marks 2**

- 4.1 servlet-name tag in the web.xml is used to define the java class file
- 4.2 servlet-class is used to define the servlet name
- 4.3 url-pattern is used to define the web link
- 4.4 Java class of servlet needs to implement **"Public static void main(String[] args)"**

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**Question 5)** Write a Java program to arrange the elements of a given array of integers where all positive integers appear before all the negative integers.

**Marks 3**

**Input:** Original array: [-4, 8, 6, -5, 6, -2, 1, 2, 3, -11]

**Output:** New array: [8, 6, 6, 1, 2, -4, -5, -2, 3, -11]

**Note:** *Hardcode the values, no need to take user input.*

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**Question 6)** Write a java program to declare an integer named day whose value represents a day(1-7). The code should display the name of the day, based on the value of day.

**Marks 3**

**For Example:** If the user has entered '1' then program should display '**Monday**'.

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**Question 7)** Why multiple inheritance is not possible in java using class? How is it possible using Interface? Explain both scenarios using a java program.

**Marks 6**

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