

MANII MANIPAL

MANIPAL INSTITUTE OF TECHNOLOGY

(A constituent unit of MAHE, Manipal)

IV SEMESTER B.TECH. DEGREE

END SEMESTER EXAMINATIONS, APRIL 2018

SUBJECT: PROGRAMMING IN JAVA (open elective) [CSE 3290] REVISED CREDIT SYSTEM (30/04/2018)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

✤ Answer ALL FIVE FULL questions.

✤ Missing data may be suitable assumed.

- **1A.** Explain the working of labelled break and labelled continue statements in a Java program which contains nested loops.
- **1B.** Explain the following Java Buzzwords.
 - a. Object oriented
 - b. Distributed
 - c. Architecture neutral
- **1C.** With examples, explain and demonstrate the difference between signed right shift and unsigned right shift operators. **3M**
- **2A.** What is the difference between overloading and overriding? Explain with suitable example programs.
- 2B. What is the output of following error free code?

<pre>class Example{ double a,b; Example (double x, double y){ a=x;b=y;} void f1() { a=a+b; b=a+b;} void disp() { System.out.println(a+" "+b);}</pre>	<pre>public static void main(String args[]) { Example e1=new Example(0.5,0.5); e1.f1(); e1.disp(); Example e2=new Example(1.5,0.5); e2.f1(); e2.disp(); }}</pre>
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2M

3M

2C. Define a class called Student with two private data members: name and roll_no. Define parameterized constructor to initialize this class. Write a function disp() to display the data members. Derive a class Marks from Student class with 3 data members: sub1, sub2, sub3. Define parameterized constructor under Marks class to initialize superclass and subclass data members. Write 2 member functions: (i) sum() to compute and display total marks (ii) disp() to display all the details of a student(such as name, roll_no, marks in 3 subjects). Demonstrate Marks class by creating objects in main.

4M

3C.

balance. Include a

- which displays name and balance. Put the above in a package called BalPack. Write a program outside the BalPack package which instantiates 3M the Balance class and calls method show(). 4A. Illustrate user defined exception in java with an example program. 3M 4B. Write any two differences between Byte Streams and Character Streams. 3M Write a program to copy one file to another using Byte Stream classes. 4C. What are events, event sources and event listeners? Explain the advantage **4M** of delegation event model used in java. 5A. Explain the life cycle of an applet with the help of an applet skeleton. 4M 5B. Illustrate anonymous inner class with the help of a program which displays the message "mouse pressed" in the status bar of the applet viewer when the 3M mouse is pressed. 5C. List and explain the steps to be followed to connect java program to 3M database.
- **3A.** What are the two different uses of the keyword *final* with Inheritance? Explain with the relevant example.
- 3B. What is multithreading? How is it achieved in java? Write a program to demonstrate multiple threads. Each thread should display numbers from 1 to 5 in an interleaved fashion. Use proper exception handling mechanism.

Create a class called Balance containing instance variables name and

parameterized constructor. Include a method show()

3M

4M