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MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL

A Constituent Institution of Manipal University

IV SEMESTER B.TECH. DEGREE
MAKE UP EXAMINATIONS, JUNE/JULY 2017
SUBJECT: PROGRAMMING IN JAVA (open elective) [CSE 3290]
REVISED CREDIT SYSTEM
(23/06/2017)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

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| <ul style="list-style-type: none">❖ Answer ALL the questions.❖ Missing data may be suitably assumed. |
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- 1A. Explain the following Java Buzzwords.
a. Object oriented
b. Robust
c. Architectural neutral. 3M
- 1B. Demonstrate the working of labelled continue and break statements in nested loops with the help of example programs. 4M
- 1C. Define a class called Circle that contains two private instance variables: radius (of type double) and color (of type String). Initialize the variables radius and color with default value of 1.0 and "red", respectively using default constructor. Include a parameterized constructor which takes one double and another string argument passed as parameter. Write 2 public methods: getRadius() and getArea() for returning the radius and area of the circle. Create an array of objects and invoke the above methods and constructors in the main. 3M
- 2A. Write a table showing the class members visibility with respect to packages. 3M
- 2B. How are 1D and 2D arrays declared and initialized in java? Give an example program to initialize a matrix to following values and print the matrix.
12 13 14 15
16 17 18
1 2 3 4
11 12 13 44 4M
- 2C. With relevant examples, explain two general forms of Super. 3M
- 3A. Write a program to demonstrate multiple threads. Each thread should display numbers from 1 to 10 in an interleaved fashion. Use proper exception handling mechanism. 4M
- 3B. Distinguish between throw and throws keywords. Demonstrate the use of both the keywords with an example program 4M

- 3C. With proper syntax differentiate between join() and sleep() methods. 2M
- 4A. What are events, event sources and event listeners? Explain the advantage delegation event model used in java. 4M
- 4B. List and explain predefined streams in Java. 3M
- 4C. Write a program to read the content from the file "input.txt" and write its content to a file "output.txt" using byte stream classes. 3M
- 5A. When is a KeyEvent generated? List the different types of events and explain. Write a program to handle Keyboard Events. 4M
- 5B. Write an applet that obtains an integer from the user and displays the multiplication table for that number. 4M
- 5C. Draw the block diagram of jdbc architecture. Why do we need jdbc driver? 2M