Reg. No.									

Manipal Institute of Technology

(Constituent Institute of Manipal University)

Manipal – 576 104

SECOND SEMESTER M. C. A. END SEMESTER EXAMINATION – MAY 2015

SUBJECT: ADVANCED JAVA PROGRAMMING (MCA 4201)

07-05-2015

Time : 3 hours

Max. marks : 50

Instructions to Candidates

1. Answer any 5 FULL questions.
2. All questions carry equal marks.
3. Assume missing data, if any. Mention the same.

1A What is a listIterator? Explain, with syntax and an example, the *hasPrevious*() and *hasNext*() methods of the listIterator interface.

1B Explain the method of using variable-length arguments in a function. Illustrate with an example.

1C List the two uses of *super* keyword.

(5 + 3 + 2)

2A Explain the FileInputStream and FileOutputStream classes and their constructors. Illustrate, with an example, the method of using these classes to transfer the contents of one file to another.

2B Explain, with syntax, the working of a 'enhanced' for loop. Write an 'enhanced' for loop to find the sum of the elements of an array of integers.

2C What is a socket? Explain the components of a socket address?

(5 + 3 + 2)

3A Explain the Deque interface of the Collections Framework. Write the syntax and differentiate between the following pairs of methods of this interface:

a) *peekFirst*() and *pollFirst*()
b) *addLast*() and *offerLast*()

3B What is an exception? How it can be handled in a program? Explain with an example.

3C Comment on the compilation and execution of the following Java code:

```
byte b = 50;
b = b * 2;
```

Specify the changes required to make the code to compile and execute successfully.

(5 + 3 + 2)

4A Explain the five steps involved in establishing connection between a Client and a Server using TCP socket classes and their methods.

4B What do you mean by BorderLayout in AWT? List the constants used to specify various regions in BorderLayout.Explain, with syntax, the two constructors used to create a BorderLayout.

4C What is the difference between *indexOf* () and *lastIndexOf* () methods of String class? Given the string S = "Manipal University", write the values of *m* and *n* obtained after executing the statements int m = *indexOf* ("it") and int n = *lastIndexOf* ("ni").

(5 + 3 + 2)

5A Define a package. Illustrate, with an example, the method of creating a package and using it in another program.

5B What is a ResultSet? Explain, with an example each, the two ways of retrieving data from the ResultSet.

5C What is RMI? Explain the benefits of using RMI.

(5 + 3 + 2)

6A Explain, with an example, the method of creating a menu using JMenuBar, JMenu and JMenuItem classes of Java Swing.

6B What is the difference between *mkdir*() and *mkdirs*() methods of File class? Illustrate them for the file path /dir1/dir2/dir3.

6C What do you mean by autoboxing? Explain with an example.

(5 + 3 + 2)

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