

Reg. No.



Manipal Institute of Technology
(A Constituent Institute of Manipal University)



**II SEMESTER M. C. A.
END SEMESTER EXAMINATION – MAY 2016**

SUBJECT: ADVANCED JAVA PROGRAMMING [MCA 4201]

05-05-2016

Time : 3 hours

Max. Marks : 50

Instructions to Candidates

1. Answer ANY FIVE FULL questions.
2. Missing data may be suitably assumed.

- 1A Differentiate between the Swing Components JButton and JToggleButton. Explain, with suitable examples, the method of creating them.
 - 1B Explain the method of using variable-length arguments in a function. Illustrate with an example.
 - 1C List the four components of a URL specification.
- (5 + 3 + 2)
- 2A What are the two classes used for data communication using TCP? Explain, with an example, the relevant methods and steps used for this.
 - 2B Explain, with syntax, the *getEchoChar()* and *setEchoChar()* methods of TextField class in AWT.
 - 2C Write the syntax of the *service()* method of javax.servlet.Servlet interface and explain its purpose.

(5 + 3 + 2)

- 3A What is a package? Explain, with an example, the private, public and protected access specifiers used with members of a class in a package.
- 3B Explain the *ceiling()* and *higher()* methods of NavigableSet interface. Illustrate with an example.
- 3C What is a JScrollPane? Explain.

(5 + 3 + 2)

- 4A What is a FileInputStream? Explain, with syntax, the two constructors used to create a FileInputStream. Also, explain the *mark()* and *reset()* methods.
- 4B What is a ResultSet? Explain, with an example each, the two ways of retrieving data from the ResultSet.
- 4C What is RMI? Explain the benefits of using RMI.

(5 + 3 + 2)

- 5A What is the difference between String and StringBuffer objects? Explain the following with syntax and an example each.
- a) *compareToIgnoreCase()* method of String class.
 - b) *setCharAt()* method of StringBuffer class.
- 5B Explain, with syntax, the *start()*, *init()* and *stop()* methods of Applet class.
- 5C What is JSP? Explain.

(5 + 3 + 2)

- 6A What is a listIterator? Explain, with syntax and an example, the *hasPrevious()* and *hasNext()* methods of the listIterator interface.
- 6B Explain the concept of method overriding in inheritance. Illustrate with a suitable example.
- 6C What is the difference between *sleep()* and *wait()* methods with reference to threads?

(5 + 3 + 2)
