



IV Semester M.C.A. Examination, June 2016
(CBCS Scheme)
COMPUTER SCIENCE
MCA 401T : Advanced Java Programming

Time : 3 Hours

Max. Marks : 70

Instruction : Answer **any five** questions from Section – **A** and **any four** questions from Section – **B**.

SECTION – A

Answer **any five** questions. **Each** question carries **six** marks. (5×6=30)

1. Compare and contrast overriding and overloading in java with example.
2. Define annotations. Discuss the types of java annotations with example.
3. Define thread. Discuss the multithreading concepts in java programming.
4. Discuss the different methods of Java console class with example.
5. Explain briefly the life cycle of Java Servlets.
6. What is XML Parser ? Discuss the various types of Parsers in XML.
7. Discuss the design patterns in Java and explain the singleton design pattern with an example.
8. Explain the MVC architecture in Java.

SECTION – B

Answer **any four** questions. **Each** question carries **ten** marks. (10×4=40)

- 9: a) Discuss the exception handling mechanisms briefly with an example. 5
b) Define interface. Write a java program for the implementation of interface. 5
10. a) What is JVM ? Explain the internal architecture of JVM. 5
b) Explain the java networking and write a java program using socket programming. 5

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- 10. a) Explain the role of super and final keywords with respect to inheritance. 5
 - b) Explain Auto Boxing and unboxing with an example. 5
 - 11. a) Differentiate serializable and externalizable interfaces in Java. 6
 - b) What is a datagram ? Explain datagram packet and datagram socket in Java. 4
 - 12. a) Explain servlet life cycle. 6
 - b) Discuss the purpose of an Adaptor class with example. 4
 - 13. Name various design patterns used in JDK Library and explain. 10
 - 14. a) Explain in detail the purpose of Hibernate framework in Java. 5
 - b) Explain dependency injection in Spring. 5
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