

**IV Semester M.C.A. Examination, June 2017
(CBCS)
COMPUTER SCIENCE
MCA 401 T : Advanced JAVA Programming**

Time : 3 Hours

Max. Marks : 70

- Instructions :** 1) Answer *all* the Sections.
2) Answer *any five* questions from Part – A and *any four* questions in Part – B.

PART – A

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

1. What are the advantages of Java Packages ? Explain with an example.
2. What is an exception in Java ? Classify exceptions and explain any one type of exception with a Java Program.
3. How does Java Virtual Machine handle method invocation and return ?
4. What is a multicast socket ? Explain with an example.
5. Explain the difference between comparable and comparator in Java.
6. Write a note on SOAP Web services.
7. Explain MVC design pattern.
8. What are the different modules in Spring framework ?

PART – B

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

9. a) What are Threads in Java ? Explain the two ways of creating Threads. **5**
- b) What are Generics ? Give an example of a simple generic class. **5**

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| 11. a) | Briefly explain the stream classes in java with an example. | 6 | |
| | b) | Explain briefly the life cycle of Applets. | 4 |
| 12. a) | Discuss the java inner class and its types with example. | 4 | |
| | b) | What is event handling ? List out the event classes and event listener interfaces. | 6 |
| 13. a) | Differentiate between the SOAP and REST Web Services. | 4 | |
| | b) | Explain the factory method pattern and abstract factory pattern with an example. | 6 |
| 14. a) | Describe the Facade pattern and Command pattern with an example. | 4 | |
| | b) | Briefly explain the Spring and Hibernate framework in Java. | 6 |
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