



PG – 560

IV Semester M.C.A. Examination, June/July 2018  
(CBCS)

COMPUTER SCIENCE  
MCA 401T : Advanced Java Programming

Time : 3 Hours

Max. Marks : 70

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

PART – A

Answer any five full questions :

(5×6=30)

1. Why is Java said to be secure ?
2. What is an Annotation ? Explain its different types with an example.
3. What is a Parser ? Explain the DOM parser in detail.
4. What is Synchronization ? Explain it with an example.
5. What is an Applet ? Explain the life cycle of an applet.
6. What is Inheritance in Java ? Give an example.
7. What is Garbage collection ? Explain the process of freeing memory space.
8. Explain Exception Handling in detail.

PART – B

Answer any four questions :

(4×10=40)

1. a) Explain stream classes.  
b) Explain JVM in detail with a neat diagram.

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| 2. a) What is Client-Server Technology ?  | 4  |
| b) Explain the Remote Method Invocation in detail.                              | 6  |
| 3. a) What is a Web Service in Java ?   | 2  |
| b) Explain SOAP and RESTFUL web services.                                       | 8  |
| 4. a) What is a design pattern ?  | 2  |
| b) Explain the Proxy pattern in detail.   | 8  |
| 5. Explain the MVC (Model View Controller) model in detail with a neat diagram. | 10 |
| 6. Write short notes on :   |    |
| a) Spring and Hibernate.  | 5  |
| b) Inner Class.   |    |



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COMPUTER SCIENCE  
MCA 401 T : Advanced JAVA Programming

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- 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**

P.T.O.



- 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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PG – 502

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**

P.T.O.



- 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