



13MCA42

**Fourth Semester MCA Degree Examination, Dec.2019/Jan.2020**  
**Advanced Java Programming**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions.**

- 1 a. Describe Servlet. Illustrate the phases of the servlet life cycle with appropriate method implementation. (10 Marks)  
 b. Briefly explain the different HTTP request headers and different methods to handle it in servlet. (10 Marks)
- 2 a. Write a Java Servlet Program that handles Form Data. (10 Marks)  
 b. What is Session Tracking? Explain different techniques of session tracking with the help of examples. (10 Marks)
- 3 a. Explain different types of JSP Scripting elements with examples. (10 Marks)  
 b. How JSP works? Explain with a neat diagram, (10 Marks)
- 4 a. Write a JSP program to implement verification of a particular user login and display Welcome page. (10 Marks)  
 b. Explain the different types of JSP directive tags and list out attributes for page directive. (10 Marks)
- 5 a. Explain with examples the different JDBC data types. (10 Marks)  
 b. Explain the steps in writing JDBC program with sample code. (10 Marks)
- 6 a. Explain about JARs in details. (07 Marks)  
 b. What are Annotations? Explain built in annotations. (08 Marks)  
 c. Define Java Beans and its features. (05 Marks)
- 7 a. With the help of a neat block diagram, explain life cycle of a stateless session beans. (10 Marks)  
 b. Explain briefly:  
     i) Message Driven Beans (10 Marks)  
     ii) Entity Beans.
- 8 Write a brief note on the following:  
     a. Instance Pooling  
     b. Dependency Injection  
     c. Introspection  
     d. Transaction Processing. (20 Marks)

\* \* \* \* \*

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
 2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.