USN ☐☐☐☐☐☐☐☐☐☐ 　　　　　　　　　　　　　**13MCA42**

Fourth Semester MCA Degree Examination, June/July 2015
Advanced Java Programming

Time: 3 hrs. 　　　　　　　　　　　　　　　　　　　　　Max. Marks:100

Note: *Answer any FIVE full questions.*

1　a. Define Servlet. Explain advantages of servlet over CGI. 　　　　　　　　　**(04 Marks)**
　　b. Discuss the life cycle of servlet with appropriate method implementations. 　**(06 Marks)**
　　c. List out the request headers and explain the methods to read request headers. 　**(10 Marks)**

2　a. What is the difference between session cookie and persistent cookies? How to keep track of the user session using cookies. 　　　　　　　　　　　　　　　**(06 Marks)**
　　b. Explain the advantages of JSP over servlets. 　　　　　　　　　　　　**(04 Marks)**
　　c. What is JSP? Explain about JSP expressions, JSP declarations, JSP scriptlets with syntax and example. 　　　　　　　　　　　　　　　　　　　　　　　**(10 Marks)**

3　a. Explain all the attributes of JSP page directives. 　　　　　　　　　　　**(10 Marks)**
　　b. What is the difference between <jsp:include> action tag and include directive? 　**(04 Marks)**
　　c. Write a Java JSP program to accept employee information through a HTML. Also create Javabean class, populate the bean and display the same information through JSP. 　**(06 Marks)**

4　a. Mention the different types of JDBC drivers. 　　　　　　　　　　　　　**(04 Marks)**
　　b. Describe various steps of JDBC with code snippets. 　　　　　　　　　　**(06 Marks)**
　　c. Explain the following with code snippet : i) Scrollable Result Sets　ii) Batch Updates
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　(10 Marks)

5　a. Mention and explain the Built-in annotations of Java. 　　　　　　　　　　**(10 Marks)**
　　b. Explain the Bound and constrained properties for design patterns. 　　　　　**(10 Marks)**

6　a. Describe the basic JDBC datatypes and advanced JDBC datatypes. 　　　　　**(08 Marks)**
　　b. Explain the container services provided by component model of EJB. 　　　　**(12 Marks)**

7　a. Discuss the life cycle of message driven bean. 　　　　　　　　　　　　　**(05 Marks)**
　　b. What is session bean? Explain the types of session beans. 　　　　　　　　**(10 Marks)**
　　c. What is entity bean? Explain the java persistence model. 　　　　　　　　**(05 Marks)**

8　　Write a short note on the following:
　　a. Status codes.
　　b. SendRedirect( ) method.
　　c. HTTP response headers.
　　d. Packages and interfaces. 　　　　　　　　　　　　　　　　　　　**(20 Marks)**

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