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13MCA42

**Fourth Semester MCA Degree Examination, Dec.2016/Jan.2017**  
**Advanced Java Programming**

Time: 3 hrs.

Max. Marks:100

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

- 1
  - a. Explain the structure of a servlet program with a servlet template. (08 Marks)
  - b. List and explain the methods involved in the servlet life cycle. (06 Marks)
  - c. Write a servlet program which demonstrates the usage of the get parameter ( ) method. (06 Marks)
  
- 2
  - a. List and explain any six methods of HttpServlet Request class. (06 Marks)
  - b. Explain the steps in detail involved in sending the cookies to the client. (09 Marks)
  - c. Write a servlet program to check whether the session is new or old. (05 Marks)
  
- 3
  - a. What is the need for JSP, benefit and advantages of JSP over competing technologies? (10 Marks)
  - b. Explain the different types of JSP tags with an example for each. (10 Marks)
  
- 4
  - a. List all the attributes of page directive tag and explain any five with an example for each. (10 Marks)
  - b. Write a JSP program which displays an applet with the help of <jsp:plugin>tag. (10 Marks)
  
- 5
  - a. What is a Java Bean? What are the key concepts of Java Bean? List out the advantages of Java Bean. (10 Marks)
  - b. What are the different categories of JDBC drivers? (06 Marks)
  - c. What are basic steps that need to be followed while writing an application that uses JDBC API? (04 Marks)
  
- 6
  - a. Explain Prepared statement object with an example java program. (10 Marks)
  - b. What is the advantage of using add Batch ( ) and execute Batch ( ) methods in JDBC. (06 Marks)
  - c. Explain the following advanced JDBC data type: BLOB, CLOB. (04 Marks)
  
- 7
  - a. Explain transactions, security and Timer specification of container services in EJB. (10 Marks)
  - b. With a neat diagram, explain the states of life cycle of a stateless session Bean. (10 Marks)
  
- 8
 

Write short notes on :

  - a. Creating a jar file (05 Marks)
  - b. Scrollable Result set (05 Marks)
  - c. Message Driven Bean (05 Marks)
  - d. Dependency Injection. (05 Marks)

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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.