

Course Code : CST 403-3/CST 413-3

CXDW/RW – 18 / 5105

**Seventh Semester B. E. (Computer Science and Engineering)
Examination**

Elective - I

ADVANCED OBJECT ORIENTED TECHNOLOGIES

Time : 3 Hours]

[Max. Marks : 60

Instructions to Candidates :—

Assume suitable data wherever necessary and clearly state the assumption made.

1. (a) List all types of Enterprise Java Beans. What is the difference between them ? 5 (CO 1)
(b) What is JNDI lookup and its use in EJBs ? Also explain different JNDI Naming Syntaxes. 5 (CO 1)
2. (a) What is ConnectionMetaData ? Explain any 2 methods of connectionMetaData interface. 3 (CO 1)
(b) Given a Table STUDENT (SID, SNAME, T1MARKS, T2MARKS, T3MARKS). Connect to the database using JDBC. Add 5 rows to the table. Design a procedure to accept student id and return student name and the total of best two marks. Using Callable Statement, call and execute the above procedure. 7 (CO 1)
3. (a) Explain in brief types of attributes in a Servlet and their scopes. 5 (CO 2)
(b) How cookies can be used to manage state effectively ? 5 (CO 2)
4. (a) Design a web application in JSP to implement an e - dictionary with the following functionality :
* The homepage must provide an interface for searching a word from the database.

CXDW/RW-18 / 5105

Contd.

- * If the word is invalid the user will be redirected to the homepage, with an appropriate error message.
- * If the word is found in database its meaning and synonyms will be fetched and displayed.
- * If the word is valid but not found in database, then the user must be redirected to a Google search page with the entered word in the Google query string.

[Assume that a table named DICTIONARY having columns Word, Meaning and Synonym already exists in the database] 10 (CO 2)

5. (a) Elaborate setter and constructor injection using map. 5 (CO 3)
- (b) What is the use of Bean Post Processor methods ? Clarify with an example. 5 (CO 3)

6. (a) Generate One-to-Many mapping for the given entities :
 UNIVERSITY (UNIV_ID, NAME, CITY, STATE)
 COLLEGE (C_ID, NAME, ADDRESS, STUD_COUNT)
 Such that, a University has many Colleges. Explain the outcome. 10 (CO 3)

OR

- (b) Explain with an example the concepts of eager fetch and lazy fetch in hibernate.
 "Eager fetch is better than lazy fetch" - True or False ?
 Justify your answer. 5 (CO 3)
- (c) Explain Hibernate architecture in detail. 5 (CO 3)