Code No. : **3165**

FACULTY OF INFORMATICS
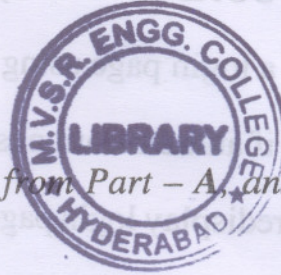## B.E. 4/4 (IT) I Semester (Main) Examination, November/December 2010
MIDDLEWARE TECHNOLOGIES

Time : 3 Hours]   [Max. Marks : 75

Note : *Answer **all** Questions from Part – A, answer **any five** Questions from Part – B.*

PART – A   (25 Marks)

1. What is a web server ?   **2**

2. How do you retrieve client data using servlet ?   **3**

3. What are the basic components of struts framework ?   **3**

4. What is dependency injection in EJB 3 ?   **2**

5. List the main differences between EJB 2.1 and EJB 3.   **2**

6. What is the difference between stateful session bean and stateless session bean ?   **3**

7. What is CTS in .NET ?   **3**

8. Give an example for middleware services provided by application servers.   **3**

9. Write the driver class of Oracle database.   **2**

10. Compare COM and CORBA.   **2**

PART – B   (50 Marks)

11. Explain the following :

    a) SOA   b) SOAP   c) WSDL   **10**

12. Write code to authenticate a login page using servlet and database (any) :   **10**

    display "login successful" if authentication is successful

    display "login failed" and redisplay login page if authentication fails.

13. Explain the CORBA architecture and list the responsibilities of ORB.   **10**

14. a) Explain flow of control of a struts application with diagram.   **6**

    b) Write a formbean class for registration form.   **4**

15. Explain .NET architecture in detail.   **10**

16. Explain EJB 3 architecture in detail.   **10**

17. a) Explain life cycle of entity bean.   **8**

    b) What is object relational mapping ?   **2**