MCA DEGREE EXAMINATIONS: MAY/ JUNE 2013

Fourth Semester

MASTER OF COMPUTER APPLICATIONS

MCA517: Middleware Technologies

Time: Three Hours   **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1. What is middleware? List its major classifications.

2. What do you mean by inter process communication?

3. Give the functionality of ejbActivate() and ejbStore() method.

4. What is marshalling?

5. What are the various transaction attributes available in EJB?

6. List any four exceptions raised in EJB.

7. What is assembly in .NET framework?

8. What do you mean by service specific middleware?

9. What is the use of proxy and stub in inter process communication?

10. What are the similarities between RMI and CORBA?

PART B (5 x 16 = 80 Marks)

11. a)   Compare 2-tier with 3-tier client-server architecture and explain how 3-tier architecture is better than 2-tier architecture.

(OR)

   b)   How is RPC implemented in client server environment? Explain in detail the various issues involved in implementing RPC with neat diagram.

12. a) (i)   Explain the basic roles in an EJB environment in detail.   (8)

   (ii) Write the steps to deploy a new EJB module**.**   (8)

(OR)

   b)   Draw the EJB architecture and explain the functions of various entities involved.

13. a) (i)   Explain the life cycle of entity bean in detail.   (8)

    (ii)   Explain the concept of session bean and its types in detail. (8)

(OR)

b) (i) Draw the life cycle of stateful session bean and explain. (8)

   (ii) State and explain main functions of middleware. (8)

14. a) Draw the architecture of .NET and how does CLR execute the .NET source code? Explain the steps involved in it.

(OR)

b) (i) Discuss the basic steps to create the web services in .NET platform. (8)

   (ii) Write a .NET program for the deposit interest calculation operation in a banking (8) system.

15. a) Explain all the interfaces in COM. Write the basic steps to create a COM object.

(OR)

b) (i) Explain the architecture of CORBA in detail. (12)

   (ii) List the differences between COM and CORBA (4)

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