KINGS

COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ACADEMIC YEAR 2011 – 2012(ODD SEMESTER)

QUESTION BANK

SUBJECT CODE / NAME: IT1402-MIDDLEWARE TECHNOLOGIES

YEAR/SEM   : IV / VII

UNIT I

CLIENT / SERVER CONCEPTS

PART –A (2 MARKS)

1.   What is Client/Server?

2.   Define File server.

3.   What are the Service Specific middlewares available?

4.   Define the services provided by Web server.

5.   Define TCP/IP and IPx/SPx.

6.   What is Remote Procedure Call?

7.   What are the different categories of client/Server applications?

8.   Define Application server.

9.   What is meant by HTTP and ODBC?

10.   Define Group Server.

11.   What is Peer-to-Peer communication?

12.   What are the different categories of client/Server applications?

13.   What is Application server?

14.   What is a Database server?

15.   What is Web Server?

16.   What is FTP Servers?

17.   What is Mail Server?

18.   What is ODBC?

19.   What is HTTP?

20.   What is MOM?

PART –B (16 MARKS)

1.   Explain the categories of Client/Server applications.   (16)

2.   Explain about Remote Procedure Call (RPC) and Java RMI.   (16)

3.   Explain Briefly about Message Oriented Middleware (MOM)?   (16)

4.   Explain the various Service Specific Middleware and General Middleware?(16)

5.   Explain in detail about Client/Server Building Blocks.   (16)

UNIT II

EJB ARCHITECTURE

PART –A (2 MARKS)

1.   What is EJB?

2.   What is the role of system administrator in EJB Server?

3.   List the ACID properties of transactions.

4.   Define RPC.

5.   Define Sockets.

6.   Define RMI.

7.   List the roles of EJB.

8.   List the 3 tiers involved in EJB architecture.

9.   List the key features of EJB architecture.

10.   Define EJB containers.

11.   What are the modes provided by the EJB in transaction management.

12.   What are the tasks performed by the EJB server.

13.   Define instance passivation.

14.   Define instance pooling.

15.   Define database connection pooling.

16.   What are the reasons for using database connection pooling?

17.   What is meant by preached caches?

18.   Define optimized method invocation.

19.   Mention typical EJB transactions.

20.   How EJB support security?

21.   Define EJB session beans.

22.   Define EJB entity beans.

23.   List the tasks undertaken by the client, in the EJB architecture.

24.   Define DNS.

25.   Mention the workflow of DNS.

26.   How bean methods are called?

27.   Write short notes on RMI clients?

28.   What are the classes provided by the EJB.?

29.   What is the information contained by the deployment descriptor.?

30 .   Define the roles of system administrator.

PART –B (16 MARKS)

1.   Explain the services provided by the EJB container   (16)

2.   Discuss about EJB remote interface and EJB Home Interface   (16)

3.   Explain about EJB Conversations.   (16)

4.   Discuss the various Roles in EJB.   (16)

5.   Explain in detail about Building and Deploying EJB applications.   (16)

UNIT III

EJB APPLICATIONS

PART –A (2 MARKS)

1.   Define Bean with Bean-Managed Persistent?

2.   What is Entity Bean?

3.   What is Session Bean?

4.   What is Enterprise Java Bean?

5.   What is Stateful Session Bean?

6.   What is meant by Deployment descriptor ?

7.   What is Interface?

8.   Write short notes on Transaction Monitor?

9.   Define Directory Services.

10.   What is Marshaling and unmarshaling?

11.   What are the constraints involved in session beans?

12.   In what cases the session beans become irrevocably disappear from the server?

13.   List the two states involved in session bean life cycle?

14.   What are the methods to be followed to create a stateful session bean?

15.   List the methods invoked by stateful session beans?

16.   When to use entity beans?

17.   How to guarantee the database integrity?

18.   In what way EJB can be removed?

19.   What are the problems that are not associated with entity beans?

20.   List the two types of entity beans.

21.   What are the things happening when the bean transit from ready state to pooled state?

22.   What are the typical EJB transactions?

23.   Define Deployment descriptor class?

24.   Define session descriptor class.

PART –B (16 MARKS)

1.   Explain EJB Session Bean and EJB Entity Bean.   (16)

2.   Discuss briefly about session bean life cycle.   (16)

3.   Write short notes on transactions and EJB.   (16)

4.   Implement a stateful session bean for online shopping.   (16)

5.   (a)   Write short notes entity beans and explain when to use entity beans? (8)

        (b)   Discuss briefly about entity bean life cycle.   (8)

6.   (a)   Implement an entity bean with container managed persistence for

                 Online shopping.   (8)

        (b)   How an EJB bean act as a client to another bean.   (8)

UNIT IV

CORBA

PART –A (2 MARKS)

1. Define CORBA.

2. What is meant by ORB?

3. What does IIOP stand for and what is its significance?

4. What is an Object reference?

5. What is IDL and why is it useful?

6. Define Language Mapping.

7. Define IDL Comments?

8. What is Partitioning?

9. Define GIOP.

10. What is Distributed Computing Environment ?

11. What is Client Stub?

12. What is Server Skeleton?

13. What is Language mapping?

14. Define serialization.

15. Define activation policy.

16. What is Callback method?

17. Define the capabilities of OMA?

18. Why are language mappings a necessary part of CORBA?

19. What is Naming Service?

PART –B (16 MARKS)

1. Overview of the CORBA architecture.   (16)

2. Explain Briefly about Distributed Applications.   (16)

3. Explain about CORBA and Networking Model.   (16)

4. Discuss in detail about CORBA and Object Model .   (16)

5. Explain about CORBA Alternatives.   (16)

6. Explain the Following

    (a)   Object Model   (5)

    (b)   Object Request Broker   (6)

    (c)   Interface Definition Language   (5)

7. Discus in detail about the various CORBA Services and CORBA Facilities.(16)

8. Discuss Briefly about IDL Data types.   (16)

UNIT V
COM
PART –A (2 MARKS)

1.   What is meant by COM?

2.   Define the term Interface?

3.   What is Common Language Runtime (CLR)?

4.   What is Microsoft Intermediate Language (MSIL)?

5.   What is Common Type System (CTS)?

6.   What is a Web Service?

7.   What is meant by Web form?

8.   What is Windows form?

9.   What is Binary standard?

10.   What is programming model?

11.   What is Distributed COM?

12.   What is Threading Model?

13.   What is Versioning?

14.   What is Marshalling and Remoting?

15.   What is Object Creation?

16.   What is Object Destruction?

17.   Explain COM Interfaces.

18.   What is a component?

19.   What is an Object?

20.   What is Class Module?

21.   What are the elements of Class Module?

22.   What is a Module Variable?

23.   What is an EXE file ?

24.   What is Dynamic Link Library?

25.   What is Method Routines?

26.   What is Event Declaration?

27.   What is Indirection?

28.   What is coupling?

29.   What is Cohesion?

30.   Define Constructed Type in Data types

31.   What is an Enumerated Data?

32.   Write short notes on structured data types?

33.   Write short notes on Union Data types?

33.   What is Discriminator?

34.   What is Method Signature?

35.   What is meant by Blocking on a remote method call?

36.   What is .NET?

37.   What are the major Components (Layers) of the .NET framework?

38.   What is Remoting Architecture?

PART –B (16 MARKS)

1.   Discus briefly the .Net Architecture   (16)

2.   Discuss Briefly the Basics of COM?   (16)

3.   Explain briefly the Features of COM?   (16)

4.   Explain briefly the following

      a)   Object Creation   (6)

      b)   Object Invocation   (6)

      c)   Object Destruction   (4)

5.   (a)   Compare COM and CORBA   (8)

      (b)   Explain the following

            (i)   Marshalling   (4)

            (ii)   Remoting   (4)