Reg. No. :

Question Paper Code : X 67611

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020

Seventh Semester

Computer Science and Engineering

IT 1402 – MIDDLEWARE TECHNOLOGIES

(Common to Information Technology)

(Regulations 2008)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions

PART – A   (10×2=20 Marks)

1. Explain the role of client and server system.

2. What is the advantages of peer-to-peer system over client server system ?

3. How can EJB beans access the database themselves ?

4. What is a stateless session bean ?

5. In what way EJB can be removed ?

6. What is Marshalling and unmarshalling ?

7. What is the purpose of IDL in CORBA ?

8. What is CORBA ?

9. What is a dual interface in COM ? Give reason for creating it.

10. What are the roles of CLR in Dot Net Framework ?

PART – B   **(5×16=80 Marks)**

11. a) "Middleware can be divided into different categories of services. List and
        discuss the services.   **(16)**

                                    (OR)

    b) i) What are named pipes ? Discuss how named pipes provide communication
           between clients and servers.   **(4)**

       ii) What is Message Oriented Middleware (MOM) ? With diagrammatic
           illustrations discuss MOM's messaging and queuing ?   **(12)**

12. a) Give an Overview about EJB architecture and discuss about its components
        with neat diagram.   **(16)**

                                    (OR)

    b) Describe on how Build and deploy an EJB.   **(16)**

13. a) Write a stateless session bean to display a string. Explain clearly the steps
        involved in this bean creation.   **(16)**

                                    (OR)

    b) i) Highlight the features of entity bean.   **(8)**

       ii) Explain the process of invoking the bean through servlet.   **(8)**

14. a) i) Write in detail about CORBA object model.   **(8)**

       ii) Discuss the trading services in CORBA.   **(8)**

                                    (OR)

    b) i) Explain ORB structure with a neat diagram.   **(8)**

       ii) Discuss the steps involved in building an application with CORBA.   **(8)**

15. a) Discuss and compare the Client and Server aspects of programming and
        deployment of COM and DCOM.   **(16)**

                                    (OR)

    b) Discuss and compare the following aspects of CORBA and COM or Dot-NET.

       i) Registry.   **(3)**

       ii) Remote Object Creation and Activation.   **(4)**

       iii) Method invocation and Parameter passing information.   **(3)**

       iv) Marshalling process.   **(3)**

       v) Data format.   **(3)**

_____