

B.TECH DEGREE EXAMINATIONS: NOV / DEC 2010

Seventh Semester

INFORMATION TECHNOLOGY

U07IT701: Component Based Technology

Time: Three Hours

Maximum Marks: 100

Answer ALL Questions

PART A (10 x 1 =10 Marks)

1. Knowledge about an object's working is hidden using _____.
a) Object's Encapsulation b) Component c) Procedures d) Structures
2. _____ uses white box reuse while _____ uses black box reuse.
a) Objects, Components b) Components, Objects
c) Modules, Components d) Components, Interfaces
3. EJB is a _____ component.
a) Client side b) Server side c) Stateless d) Middle tier
4. An EJB client accesses the bean through _____.
a) EJBObject b) Local Interface c) Home Interface d) Container
5. _____ processes the messages asynchronously.
a) Stateless Session bean b) Stateful Session bean
c) Entity bean d) Message-driven bean
6. _____ method is used to garbage collect the bean for entity and session beans.
a) ejbRemove() b) ejbPassivate() c) remove() d) ejbDestroy()
7. _____ serves as a glue between CORBA object implementation and the ORB.
a) Stub b) Object Adapter c) Skeleton d) Implementation repository
8. _____ creates the POA on demand.
a) Servant Manager b) Adapter Activator c) POA Manager d) Both A and B
9. _____ has generic routines needed by a program to convert an object to client program's native format.
a) OLE2.DLL b) OLE2CONV.DLL c) OLE2DISP.DLL d) OLE2NLS.DLL
10. ActiveX controls are created using _____.
a) IClassFactory b) IUnknown c) IDispatch d) IPersistMoniker

PART B (10 x 2 = 20 Marks)

11. Define Software Components.
12. What are Interfaces? What are its types?
13. What are the advantages and disadvantages of using EJB to develop Enterprise level applications?
14. What is a Deployment Descriptor?
15. What are the states of Stateful Session Beans?
16. Write notes on Stubs and Skeletons in RMI.
17. What is the functionality of ORB?
18. State the needs of Object Adapter. What are the types of Object Adapters?
19. What is the purpose of iDispatch interface?
20. List any four of the mandatory interfaces of an OLE control.

PART C (5 x 14 = 70 Marks)

21. a) Explain in detail about Component Architecture.

(OR)

- b) (i) Discuss in detail about the characteristics of Components. (7)
(ii) Explain the types of interfaces with an example. (7)

22. a) Discuss the steps involved in building and deploying an EJB application with an example.

(OR)

- b) What is EJB? Explain in detail about the architecture of EJB.

23. a) Design a Calculator for performing Simple Arithmetic operations using EJB.

(OR)

- b) Explain about the lifecycle of Session Beans and Entity Beans.

24. a) Draw a neat sketch and explain the structure of simplified ORB based system.

(OR)

- b) Explain about CORBA Component Model architecture. List the functionalities of CCM containers.

25. a) Explain in detail about DCOM with its architecture. What are the additional facilities that DCOM offers as compared to COM?

(OR)

- b) Explain in detail about ActiveX control with an example.
