A 1315

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Sixth Semester

Information Technology

IF 362 — COMPONENT BASED TECHNOLOGY

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List the requirements of a component.

2. What is marshaling?

3. What is the need of using reference counting?

4. What is event driven programming?

5. Differentiate dynamic Invocation interface and dynamic Skeleton interface.

6. What is a IDL programming model?

7. Why object clustering is difficult for implementation?

8. Define transaction with its properties.

9. What are the factory components?

10. What is an ActiveX control?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the overview of CORBA architecture with its implementation issues. (8)

    (ii) How will you develop a simple Bean application? Explain with an example. (8)

Or

(b) (i) Briefly explain how remote object can be invoked. (8)

(ii) Describe the various alternatives to client/ server architecture. (8)

12. (a) (i) Discuss the methods to overcome the problems involved in unreferenced objects (12)

(ii) How concurrency is achieved in distributed objects? (4)

Or

(b) (i) Explain the general architecture of a queuing system (10)

(ii) Discuss the methods involved in class factories. (6)

13. (a) (i) When do we use RMI programming model instead of IDL programming model? (4)

(ii) Explain the steps involved in the development of Java ORB with an example. (12)

Or

(b) (i) Explain the models involved in initiating event communication. (10)

(ii) Write a note on CORBA naming service. (6)

14. (a) (i) Explain the fundamental issues of object management. (8)

(ii) Discuss the various cache consistency models. (8)

Or

(b) (i) Describe how transaction is managed in Object DBMS. (8)

(ii) Briefly explain the issues involved in Query processing. (8)

15. (a) (i) Explain the basic architecture of DCOM. (10)

(ii) List the steps involved in creating a DLL server with ATL. (6)

Or

(b) (i) How will you create a COM object? Explain with an example. (10)

(ii) Write short notes on memory transparency. (6)