



**Part – B**

**5 x 6 = 30**

**Answer the following**

**Answer should not exceed 400 words or two pages**

11. a) What is Client/Server? Describe its characteristics.  
(Or)  
11.b) Write a note on (i) database servers (ii) object servers.
12. a) What does a server need from an operating system ?  
(Or)  
12.b) Describe Server Scalability.
13. a) List any 5 roles of SQL language.  
(Or)  
13.b) Describe multithreaded architecture.
14. a) Describe Flat Transactions.  
(Or)  
14.b) Describe TP Monitor
15. a) How is groupware different from SQL databases?  
(Or)  
15.b) What is a component? Describe its properties.

**Part – C**

**5 x 12 = 60**

**Answer the following**

**Answer should not exceed 800 words or four pages**

- 16.a) What are the two broad classes of middleware? Explain them.  
(Or)  
16.b) Explain the three building blocks of Client/Server.
- 17.a) Explain the anatomy of a Server Program.  
(Or)  
17.b) Explain the Client OS trends.
18. a) Explain i) Distributed Time Services ii) Distributed Security Services  
(Or)  
18.b) Explain MOM versus RPC in detail
19. a) What is a two-phase commit protocol? Explain.  
(Or)  
19.b) Explain the benefits of TP Monitors in detail.
- 20.a) Explain about the components of Groupware.  
(Or)  
20.b) Explain web client / server component

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