## **DISTRIBUTED SYSTEMS**

**Question Bank** 

Helping Others Have Special taste

### Lecture-3

### **Questions**

- 1- A..... is formulated in terms of components, the way that components are connected to each other, the data exchanged between components.
  - a. Component
  - b. Style
  - c. Element
  - d. None of the above
- 2- A..... is a modular unit with well-defined required and provided interfaces that is replaceable within its environment.
  - a. Component
  - b. Style
  - c. Element
  - d. None of the above
- 3- Several styles have by now been identified of which the most important ones for distributed systems are:
  - a. Layered architectures
  - b. Object-based architectures
  - c. Data-centered architectures
  - d. Event-based architectures
  - e. All of the above
- 4- The basic idea for the ..... is simple: components are organized in a layered fashion where a component at layer N, is allowed to call components at the underlying layer Ni.
  - a. Layered architectures
  - b. Object-based architectures
  - c. Centralized architectures
  - d. Event-based architectures

- 5- Layered architectures model has been widely adopted by the networking community.
  - a. True
  - b. False
- 6- A key observation is that control generally flows from layer to layer: requests go down the Hierarchy whereas the results flow upward.
  - a. True
  - b. False
- 7- In....., each object corresponds to what we have defined as a component, and these components are connected through a (remote) procedure call mechanism.
  - a. Layered architectures
  - b. Object-based architectures
  - c. Centralized architectures
  - d. Event-based architectures
- 8- The ..... and ...... Architectures still from the most important styles for large software systems.
  - a. Object-based and Centralized
  - b. Centralized and Event-based
  - c. Layered and Object-based
  - d. Layered and Centralized
- 9- In ......, processes essentially communicate through the propagation of events, which optionally also carry data.
  - a. Layered architectures
  - b. Object-based architectures
  - c. Centralized architectures
  - d. Event-based architectures

- 10- The main advantage of object-based systems is that processes are loosely coupled.
  - a. True
  - b. False
- 11- In the ..... model, processes in a distributed system are divided into two groups.
  - a. Layered
  - b. Object-based
  - c. Client-Server
  - d. Event-based
- 12- A.... is a process implementing a specific service
  - a. Client
  - b. Server
  - c. None of the above
- 13- A .....is a process that requests a service from server by sending it a request and subsequently waiting for the server's reply.
  - a. Client
  - b. Server
  - c. None of the above
- 14- This client-server interaction, also known as request-reply behavior.
  - a. True
  - b. False

- 15- Communication between a client and server can be implemented by means of a simple ...... Protocol when the underlying network is fairly reliable as in many local-area networks.
  - a. Connectionless
  - b. Connection-oriented
  - c. None of the above
- 16- Many client-server applications are targeted toward supporting user access to databases, many people have advocated a distinction between the following ..... levels.
  - a. Two
  - b. Three
  - c. Four
  - d. One
- 17- The .....level contains all that is necessary to directly interface with the user, such as display management.
  - a. User-interface
  - b. Processing
  - c. Data
  - d. None of the above
- 18- The .....level typically contains the applications.
  - a. User-interface
  - b. Processing
  - c. Data
  - d. None of the above
- 19- The .....level manages the actual data that is being acted on.
  - a. User-interface
  - b. Processing
  - c. Data
  - d. None of the above

- 20- .....typically implement the user-interface level.
  - a. Clients
  - b. Servers
  - c. None of the above
- 21- A Client machine containing only the programs implementing (part of) the .....level.
  - a. User-interface
  - b. Processing
  - c. Data
  - d. None of the above
- 22- A server machine containing the rest, that is the programs implementing the ......level.
  - a. User-interface and processing
  - b. Processing and data
  - c. Data and user-interface
  - d. None of the above
- 23- ..... are direct consequence of dividing applications into a user-interface, processing component, and a data level.
  - a. Layered architectures
  - b. Object-based architectures
  - c. Multitiered client-server architectures
  - d. Event-based architectures
- 24- In a ......, the overlay network is constructed using a deterministic procedure (Hash function).
  - a. Structured Peer-to-Peer Architecture
  - b. Unstructured Peer-to-Peer Architecture
  - c. Hybrid Architectures
  - d. None of the above

- 25- Nodes in the Structured Peer-to-Peer system are also assigned a random number from the same identifier space.
  - a. True
  - b. False
- 26- .....systems largely rely on randomized algorithms for constructing an overlay network.
  - a. Structured Peer-to-Peer
  - b. Unstructured Peer-to-Peer
  - c. Hybrid
  - d. None of the above
- 27- In Unstructured Peer-to-Peer, the main idea is that each node maintains a list of neighbors, but that this list is constructed in a more or less random way.
  - a. True
  - b. False
- 28- In Hybrid Architectures, some specific classes of distributed systems in which client-server solutions are combined with ........
  - a. Structured Peer-to-Peer
  - b. Unstructured Peer-to-Peer
  - c. Decentralized Architectures
  - d. None of the above
- 29- An important class of distributed systems that is organized according to a Hybrid Architectures is formed by ......
  - a. Structured Peer-to-Peer Systems
  - b. Edge-Server Systems
  - c. Unstructured Peer-to-Peer Systems
  - d. None of the above

#### Lecture-3

## 30- Many middleware solutions have adopted an ......style, such as CORBA.

- a. Layered architectural
- b. Event-based architectural
- c. Object-based architectural
- d. None of the above
- 31- Middleware has enabled the production of various types of smart machines having microprocessor chips with embedded software.
  - a. True
  - b. False
- 32. A "glue" between client and server parts of application.
  - a. Middleware
  - b. Firmware
  - c. Package
  - d. System Software

## 33- A software that lies between the OS and the applications running on it.

- a. Firmware
- b. Middleware
- c. Utility Software
- d. Application Software

#### 34-What is middleware?

- a. Software that enables communication between different software applications
- b. Software that manages the hardware resources of a computer
- c. Software that provides security for a computer system
- d. Software that translates programming languages

#### 35- Middleware is commonly used in:

a. Web browsers

- b. Word processors
- c. Graphics editing software
- d. Database management systems

### Lecture-3

#### 36. What is layered styles?

- a. The components are designed to layers to control inter component interaction
- b. The components are designed to layers to control the data flow into specific direction
- c. All of the mentioned
- d. None of the mentioned

#### 37. In which system, tasks are equally divided between all the nodes?

- a. client/server systems
- b. peer to peer systems
- c. user to client system
- d. All of the above

## 38. The nodes in the distributed systems can be arranged in the form of?

- a. client/server systems
- b. peer to peer systems
- c. Both A and B
- d. None of the above

## 39. All the nodes in distributed system communicate with each other and handle processes in tandem.

- a. TRUE
- b. FALSE
- c. Can be true or false
- d. Can not say



## Lecture-3

## **Answers**

Question	Answer
1	В
2	A
3	E
4	A
5	A
6	A
7	В
8	С
9	D
10	В
11	С
12	В
13	A
14	A
15	A
16	В
17	A
18	В
19	С
20	A
21	A
22	В
23	С



24 A 25 A 26 B 27 A 28 C 29 B 30 C
26 B 27 A 28 C 29 B 30 C
27 A 28 C 29 B 30 C
28 C 29 B 30 C
29 B 30 C
30 C
31 B
32 A
33 B
34 A
35 D
36 C
37 B
38 C
39 A



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