1. **Bank IT officer Quizzes**

1. Which is Computer Memory that does not forget ?
Ans: ROM

2. The computer memory holds data and ?
Ans: program

3. What is means by term RAM ?
Ans: Memory which can be both read and written to

4. Which computer memory is esentially empty ?
Ans: RAM

5. The bubbles in a bubble memory pack are created with the help of ?
Ans: magnetic field

6. Virtual memory is -
Ans: an illusion of an extremely large memory

7. Special locality refers to the problem that once a location is referenced
Ans: a nearby location will be referenced soon

8. An example of a SPOOLED device
Ans: A line printer used to print the output of a number of jobs

9. Page faults occurs when
Ans: one tries to divide a number by 0

10. Overlay is
Ans: a single contiguous memory that was used in the olden days for running large programs by swapping

Operating System Question Answer

11. Concurrent processes are processes that -
Ans: Overlap in time

12. The page replacement policy that sometimes leads to more page faults when the size of the memory is increased is -
Ans: FIFO

13. The only state transition that is initiated by the user process itself is -
Ans: Block

14. Fragmentation is -
Ans: fragments of memory words unused in a page

15. Give Example of real time systems
Ans: Aircraft control system, A process control system

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16. Dijkstra's banking algorithm in an operating system solves the problem of -
Ans: Deadlock Avoidance

17. In a paged memory system, if the page size is increased, then the internal fragmentation generally -
Ans: Becomes more

18. An operating system contains 3 user processes each requiring 2 units of resources R. The minimum number of units of R such that no deadlock will ever occur is -
Ans: 4

19. Critical region is -
Ans: A set of instructions that access common shared resources which exclude one another in time

20. Kernel is -
Ans: The set of primitive functions upon which the rest of operating system functions are built up

21. Necessary conditions for deadlock are -
Ans: Non-preemption and circular wait, Mutual exclusion and partial allocation

22. In a time sharing operating system, when the time slot given to a process is completed, the process goes from the RUNNING state to the -
Ans: READY state

23. Supervisor call -
Ans: Are privileged calls that are used to perform resource management functions, which are controlled by the operating system

24. Semaphores are used to solve the problem of -
Ans: Mutual exclusion, Process synchronization

25. If the property of locality of reference is well pronounced in a program-
Ans: The number of page faults will be less

Operating System Question Answer for Competitive Exams

26. Pre-emptive scheduling, is the strategy of temporarily suspending a running process-

Ans: before the CPU time slice expires

27. Mutual exclusion problem occurs -
Ans: among processes that share resources

27. Sector interleaving in disks is done by -
Ans: the operating system

28. Disk scheduling involves deciding-
Ans: the order in which disk access requests must be serviced

29. Dirty bit is used to show the -
Ans: page that is modified after being loaded into cache memory

30. Fence register is used for-
Ans: memory protection.

31. The first-fit, best-fit and worst-fit algorithm can be used for-
Ans: contiguous allocation of memory

32. Give example of single-user operating systems-
Ans: MS-DOS, XENIX

33. In Round Robin CPU Scheduling, as the time quantum is increased, the average turn around time-
Ans: varies irregulary

34. In a multiprogramming environment-
Ans: more than one process resides in the memory

35. The size of the virtual memory depends on the size of the -
Ans: Address Bus

36. Give example of Scheduling Policies in which context switching never take place-
Ans: Shortest Job First, First-cum-first-served

37. Suppose that a process is in 'BLOCKED' state waiting for some I/O service. When the service is completed, it goes to the-
Ans: READY State.

Q1. What is Client-server Computing?

Ans: The short answer: Client/server is a computational architecture that involves client processes
requesting service from server processes.
The long answer: Client/server computing is the logical extension of modular programming. Modular programming has as its fundamental assumption that separation of a large piece of

software into its constituent parts ("modules") creates the possibility for easier development and better maintainability. Client/server computing takes this a step farther by recognizing that those modules need not all be executed within the same memory space.

With this architecture, the calling module becomes the "client" (that which requests a service), and the called module becomes the "server" (that which provides the service). The logical extension of this is to have clients and servers running on the appropriate hardware and software platforms for their functions. For example, database management system servers running on platforms specially designed and configured to perform queries, or file servers running on platforms with special elements for managing files. It is this latter perspective that has created the widely-believed myth that client/server has something to do with PCs or Unix machines.

Q2 What is a Client process?

Ans: The client is a process (program) that sends a message to a server process (program), requesting that the server perform a task (service). Client programs usually manage the user-interface portion of the application, validate data entered by the user, dispatch requests to server programs, and sometimes execute business logic. The client-basedprocess is the front- end of the application that the user sees and interacts with. The client process contains solution-specific logic and provides the interface between the user and the rest of the application system. The client process also manages the local resources that the user interacts with such as the monitor, keyboard, workstation CPU and peripherals. One of the key elements of a client workstation is the graphical user interface (GUI). Normally a part of operating system i.e. the window manager detects user actions, manages the windows on the display and displays the data in the windows.

Q3 What is a Server process?

Ans : A server process (program) fulfills the client request by performing the task requested. Server programs generally receive requests from client programs, execute database retrieval and updates, manage data integrity and dispatch responses to client requests. Sometimes server programs execute common or complex business logic. The server-based process "may" run on another machine on the network. This server could be the host operating system or network file server; the server is then provided both file system services and application services. Or in some cases, another desktop machine provides the application services. The server process acts as a software engine that manages shared resources such as databases, printers, communication links, or high powered-processors. The server process performs the back-end tasks that are common to similar applications.

Q4 What is a Two-Tier Architecture?

Ans : A two-tier architecture is where a client talks directly to a server, with no intervening server. It is typically used in small environments (less than 50 users). A common error in client/server development is to prototype an application in a small, two-tier environment, and then scale up by simply adding more users to the server. This approach will usually result in

an ineffective system, as the server becomes overwhelmed. To properly scale to hundreds or thousands of users, it is usually necessary to move to a three-tier architecture.

Q5 What is a Three-Tier Architecture?

A three-tier architecture introduces a server (or an "agent") between the client and the server. The role of the agent is manyfold. It can provide translation services (as in adapting a legacy application on a mainframe to a client/server environment), metering services (as in acting as a transaction monitor to limit the number of simultaneous requests to a given server), or intellegent agent services (as in mapping a request to a number of different servers, collating the results, and returning a single response to the client.

IT Officer Questions for Professional knowledge section

1. The _____ states that a foreign key must either match a primary key value in another relation or it must be null.

(a) entity integrity rule

(b) referential integrity constraint

(c) action assertion

(d) composite attribute

(e) None of these

2. An applet _____

(a) is an interpreted program that runs on the client

(b) tracks the number of visitors to a Website

(c) is a compiled program that usually runs on the client

(d) collects data from visitors to a Website

(e) None of these

3. A _____ sometimes called a boot sector virus, executes when a computer boots up because it resides in the boot sector of a floppy disk or the master boot record of a hard

disk.

(a) system virus

(b) Trojan horse virus

(c) file virus

(d) macro virus

(e) None of these

4. Which error detection method uses one's complement arithmetic?

(a) Simply parity check

(b) Checksum

(c) Two-dimensional parity check

(d) CRC

(e) None of these

5. A result of a computer virus can NOT lead to _____ .

(a) Disk Crash

(b) Mother Board Crash

(c) Corruption of program

(d) Deletion of files

(e) None of these

6. The network interface card of LAN is related to following layer of OSI Model

(a) Transport

(b) Network

(c) Data Link

(d) Physical

(e) All of these

7. Which of the following does NOT describe a data warehouse?

(a) Subject-oriented

(b) Integrated

(c) Time-variant

(d) Updateable

(e) None of these

8. Which of the following is TRUE ?

(a) Logical design is software-dependent

(b) In a distributed database, database is stored in one physical location

(c) Conceptual design translates the logical design into internal model

(d) Logical design is software independent

(e) None of these

9. A range check _____

(a) ensures that only the correct data type is entered into a field

(b) verifies that all required data is present

(c) determines whether a number is within a specified limit

(d) tests if the data in two or more associated fields is logical

(e) None of these

10. The total set of interlinked hypertext documents worldwide is-

(a) HTTP

(b) Browser

(c) WWW

(d) B2B

(e) None of these

11. With the object-oriented (OO) approach, an object encapsulates, or _____ .a programmer.

(a) carries out, the details of an object for

(b) hides, the details of an object from

(c) reveals, the details of an object to

(d) extends, the details of an object beyond

(e) None of these

12. Every computer connected to an intranet or extranet must have a distinct _____

(a) firewall

(b) proxy server

(c) IP address

(d) domain name

(e) None of these

13. A table of bits in which each row represents the distinct values of a key?

(a) Join index

(b) Bitmap index

(c) B + Tree

(d) Hierarchical index

(e) None of these

14. The degree of detail that should be incorporated into a database depends on what?

(a) Data integrity

(b) The type of database

(c) The user's perspective

(d) The business practices and policies

(e) None of these

15. The _____ converts digital signals to analog signals for the purpose of transmitting data over telephone lines.

(a) Modem

(b) Router

(c) Gateway

(d) Bridge

(e) All of these

16. Before a package can be used in a java program it must be _____ .

(a) executed

(b) referenced

(c) imported

(d) declared

(e) None of these

17. Choose the correct way to indicate that a line in a C++ program is a comment line, that is, a line the will not be executed as an instruction _____ .

(a) begin the line with a # sign

(b) begin the line with double slashes (/ /)

(c) begin and end the line with double hyphens (- _ -)

(d) indent the line

(e) None of these

18. Programming language built into user programs such as Word and Excel are known as _____

(a) 4GLs

(b) macro languages

(c) object-oriented languages

(d) visual programming languages

(e) None of these

19. Firewalls are used to protect against _____ .

(a) Unauthorized Attacks

(b) Virus Attacks

(c) Data Driven Attacks

(d) Fire Attacks

(e) All of these

20. This is a standard way for a Web server to pass a Web user's request to an application program and to receive data back to forward to the user-

(a) Interrupt request

(b) Forward DNS lookup

(c) Data-Link layer

(d) File Transfer Protocol

(e) Common gateway interface

21. Three SQL, DDL, CREATE commands are _____ .

(a) Schema, Base and Table

(b) Base, Table and Schema

(c) Key, Base and Table

(d) Schema, Table and View

(e) None of these

22. Data are _____ in client/server computing.

(a) never sent to the client machine

(b) sent in very large sections to save processing time

(c) sent only upon the client's request

(d) sent in complete copies for the client to filter and sort

(e) sent from the client to the server for processing

23. Which of the following will NOT eliminates the ambiguities of a null value?

(a) Define the attribute as required

(b) Define subtypes

(c) Define each attribute as having an initial value that is recognized as blank

(d) Define supertypes

(e) None of these

24. The _____ directory is mandatory for every disk.

(a) Root

(b) Base

(c) Sub

(d) Case

(e) None of these

25. This is a group of servers that share work and may be able to back each other up if one server fails.

(a) Channel bank

(b) Cluster

(c) Tiger team

(d) Serverless backup

(e) Logical unit

ANSWERS

1(a), 2. (c), 3. (e), 4. (b), 5. (b) 6. (e), 7. (d), 8. (a), 9. (c), 10. (a) 11. (b), 12. (c), 13. (b), 14. (b), 15. (a) 16. (c), 17. (b), 18. (d), 19. (a), 20. (e) 21. (d), 22. (c), 23. (d), 24. (c), 25. (b).