Q1. Which of the following memories need refresh?
   a. SRAM
   b. DRAM
   c. ROM
   d. All the above

Q2. What is the first stage in software development?
   a. Specification
   b. Testing
   c. System Analysis
   d. Maintenance

Q3. The contents of information are stored in
   a. Memory data register
   b. Memory address register
   c. Memory Arithmetic register
   d. Memory Access register

Q4. In a distributed computing environment, clients are _______.
   a. User computers that request remote services
   b. Computers that perform requested services
   c. Often dedicated to one type of task, such as rendering graphics or managing databases
   d. none of the above

Q5. Which of the following hardware components are required to execute instructions in a general-purpose computer?
   a. Main board
   b. Processor
   c. Main memory
   d. All of the above

Q6. The ________ chip, typically located on the mainboard, stores Instructions for basic hardware initialization and management.
   a. Bootstrap
   b. Firmware

Note: Attempt all 60 questions (choose one of the choices in each question).
c. Basic input/output system (BIOS)
d. Device driver

Q7. A(n) ________ is a piece of hardware that executes a set of machine-language instructions.
   a. Controller
   b. Bus
   c. processor
   d. Motherboard

Q8. Time during which a job is processed by the computer is
   a. Delay times
   b. Real time
   c. Execution time
   d. Down time

Q9. In immediate addressing the operand is placed
   a. in the CPU register
   b. after OP code in the instruction
   c. in memory
   d. in stack

Q10. The process of converting analog signals into digital signals so they can be processed by a receiving computer is referred to as:
    a. Modulation
    b. Demodulation
    c. Synchronizing
    d. Digitizing

Q11. The ALU of a computer responds to the commands coming from
    a. Primary memory
    b. Control section
    c. External memory
    d. Cache memory

Q12. Properly arranged data is called
    a. Field
    b. Words
    c. Information
    d. File

Q13. Which term is used to describe RAM?
    a. Dynamic RAM (DRAM)
    b. Static RAM (SRAM)
    c. Video RAM (VRAM)
    d. All of the above
Q14. The two basic types of record access methods are:
   a. Sequential and random
   b. Sequential and indexed
   c. Direct and immediate
   d. Online and real time

Q15. A disadvantage of the laser printer is
   a. It is quieter than an impact printer
   b. It is very slow
   c. The output is of a lower quality
   d. None of the above

Q16. A computer Program that translates one program instruction at a time into machine language is called a/an
   a. Interpreter
   b. CPU
   c. Compiler
   d. Simulator

Q17. An advantage of overlapped processing activities is:
   a. More effective use of CPU
   b. Increased processing activities for entire system
   c. Better coordination of I/O activities
   d. All the above

Q18. Any method for controlling access to or use of memory is known
   a. Memory map
   b. Memory protection
   c. Memory management
   d. Memory instruction

Q19. Which of the following lists memory types from highest to lowest speed?
   a. Secondary storage, main memory, cache, registers
   b. Registers, cache, secondary storage, main memory
   c. Registers, cache, main memory, secondary storage
   d. Cache, registers, main memory, secondary storage

Q20. Why is hard disk storage much slower to access than main memory?
   a. Accessing data on a hard disk requires mechanical movement of the read/write head.
   b. Disks are located farther from a system’s processors.
   c. Disks must be access via a hardware controller.
   d. all of the above
Q21. In the evaluation of a computer language, all of the following characteristics should be considered except?
   a. application oriented features
   b. efficiency
   c. readability
   d. hardware maintenance costs

Q22. A factor in the selection of a source language is
   a. programmer skill
   b. language availability
   c. program compatibility with other software
   d. all of the above

Q23. Output of XML document can be viewed in a
   a. Word Processor
   b. Web Browser
   c. Notepad
   d. None of the above

Q24. Computer languages can be classified as one of three types. Which of the following is not one of these types?
   a. Assembly languages
   b. High-level languages
   c. Microcode languages
   d. Machine languages

Q25. Which of the following are not one of the major pillars of object-oriented programming?
   a. Encapsulation
   b. Data Hiding
   c. Inheritance
   d. Structured Programming

Q26. Which of the Following Provides a reliable Communication?
   a. TCP
   b. IP
   c. UDP
   d. All the above

Q27. The Internet is an Example of
   a. Cell Switched Network
   b. Circuit Switch Network
   c. Packet Switched Network
   d. All the above
Q28. What do we call a network whose elements may be separated by some distance? It usually involves two or more small networks and dedicated high-speed telephone lines.
   a. URL (Universal Resource Locator)
   b. LAN (Local Area Network)
   c. WAN (Wide Area Network)
   d. World Wide Web

Q29. Bridge works in which layer of the OSI model?
   a. Application layer
   b. Transport layer
   c. Network layer
   d. Datalink layer

Q30. Which of the following can be software
   a. Router
   b. Firewalls
   c. Gateway
   d. Modem

Q31. DNS is the abbreviation of
   a. Dynamic name System
   b. Dynamic Network System
   c. Domain Name System
   d. Domain Network Service

Q32. The Operating System creates-------- from the physical Computer
   a. Virtual Space
   b. Virtual Computers
   c. Virtual Device
   d. None of the above

Q33. Multiprogramming Systems
   a. Are easier to develop than single programming systems
   b. Execute each job faster
   c. Execute more jobs in the same time period
   d. Are used only one large mainframe computers

Q34. Which of the following Operating System does not implement Multitasking truly?
   a. Window 98
   b. Window NT
   c. Window XP
   d. None of the above
Q35. Process is
   a. A program in High Level language kept on disk
   b. Content of main memory
   c. A program in execution
   d. A program in secondary storage

Q36. The strategy of allowing processes that are logically runnable to be temporarily suspended is called
   a. Preemptive scheduling
   b. Non preemptive scheduling
   c. Shortest job first
   d. First come first served

Q37. The aim of creating page replacement algorithms is to:
   a. Replace pages faster
   b. Increase the page fault rate
   c. Decrease the page fault rate
   d. To allocate multiple pages to processes

Q38. Binary search algorithm can not be applied to
   a. Sorted linked list
   b. Sorted binary trees
   c. Sorted linear array
   d. Pointer array

Q39. The difference between linear array and a record is
   a. An array is suitable for homogeneous data but the data items in a record may have different data type
   b. In a record, there may not be a natural ordering in opposed to linear array.
   c. A record form a hierarchical structure but a linear array does not
   d. All of above

Q40. ............ is very useful in situation when data have to stored and then retrieved in reverse order.
   a. Stack
   b. Queue
   c. List
   d. Link list

Q41. Which of the following is not the internal sort?
   a. Insertion Sort
   b. Bubble Sort
   c. Merge Sort
   d. Heap Sort
Q42. .......... is not the operation that can be performed on queue.
   a. Insertion
   b. Deletion
   c. Retrieval
   d. Traversal

Q43. What is meant by a dedicated computer?
   a. which is used by one person only
   b. which is assigned to one and only one task
   c. which does one kind of software
   d. which is meant for application software only

Q44. The most common addressing techniques employed by a CPU is
   a. immediate
   b. direct
   c. indirect
   d. All the above

Q45. Number of CPU registers in a system depends on ____________.
   a. Operating system
   b. Computer Architecture
   c. Computer Organization
   d. None of the above

Q46. Best-First search can be implemented using the following data structure
   a. Queue
   b. Stack
   c. Priority Queue
   d. Circular Queue

Q47. An AI technique that allows computers to understand associations and relationships between objects and events is called
   a. Heuristics processing
   b. Cognitive Science
   c. Relative Symbolism
   d. Pattern Matching

Q48. Which rule is equal to resolution rule of first-order clauses?
   a. Propositional resolution rule
   b. Inference rule
   c. Resolution rule
   d. None of the mentioned
Q49. Which of these is not a control strategy?
   a. Branch and Bound
   b. Depth First
   c. Breadth First
   d. Heuristic search

Q50. A good specification should be?
   a. Unambiguous
   b. Distinctly specific
   c. Functional
   d. All of the above

Q51. Design phase includes?
   a. Data, architectural and procedural design only
   b. Architectural, procedural and interface design only
   c. Data, architectural and interface design only
   d. Data, architectural, interface and procedural design

Q52. The largest percentage of total life cycle cost of software is:
   a. Design cost
   b. Maintenance cost
   c. Coding cost
   d. Test cost

Q53. What is done during maintenance phase?
   a. Data Flow diagram
   b. Decision Table
   c. Pie chart
   d. System Flow chart

Q54. The best-known example of a …………………….process is the Cleanroom process, which was originally developed by IBM. In the Cleanroom process each software increment is formally specified and this specification is transformed into an implementation.
   a. Waterfall model.
   b. Evolutionary development.
   c. Component-based software engineering.
   d. Formal development.

Q55. Which of the following is not a problem with secret-key cryptography?
   a. It requires a large amount of processing time and complexity to implement.
   b. Two parties must find a secure way to exchange the key.
   c. A sender needs a different key for each receiver.
   d. If the key is intercepted, a third party could pose as either host in the communication.
Q56. A key distribution center is ________.
   a. The component that actually performs the encryption and decryption
   b. A central authority that shares a different key with each user
   c. An organization that develops and supports security algorithms
   d. A system that transfers keys between hosts

Q57. How does a cryptanalytic attack typically work?
   a. It uses brute force to decrypt a message.
   b. It uses a public key to determine information about the private key.
   c. It exploits weak statistical trends between the key and the ciphertext to gain knowledge about the key.
   d. It overloads the receiver so that legitimate messages cannot be received.

Q58. Database management systems are intended to
   a. eliminate data redundancy
   b. establish relationship among records in different files
   c. manage file access
   d. all of the above

Q59. Disadvantages of file system to store data is
   a. Data Redundancy and inconsistency
   b. Difficulty in accessing data
   c. data isolation
   d. All the above

Q60. The role of a data manipulation language (DML) is ________.
   a. to specify how data items are organized
   b. to modify data
   c. to search the database
   d. to specify how data items are related