CIT-001
CERTIFICATE IN INFORMATION TECHNOLOGY (CITOL)
FUNDAMENTALS OF COMPUTER SYSTEMS

Time : $1\frac{1}{2}$ Hours

Maximum Marks : 50

Note : i) There are 50 multiple choice questions in this paper.

ii) All questions are compulsory.

iii) Each question carries 1 mark.

1. Which of the following is a non-volatile memory?

A) Secondary memory

B) Cache memory

C) Register

D) Main memory

2. Computer display screen is a/an ....

A) Input device

B) Output device

C) Storage device

D) Printing device

3. Without an input device, a computer will not be able to ....

A) Display data

B) Process data

C) Get data from user

D) Store data

4. Which secondary memory device has optical storage mechanism?

A) Hard Disk

B) Floppy Disk

C) CD-ROM

D) USB Flash Memory

5. RAM is .... memory.
A) Volatile
B) Secondary
C) Magnetic tape
D) None of the above

6. 1 MB is equal to ....
A) 2^{10} bytes
B) 2^{20} bytes
C) 20^{15} bytes
D) 2^{4} bytes

7. Total access time of a disk is equal to ....
A) Seek Time $\times$ Latency Time
B) Seek Time – Latency Time
C) Seek Time + Latency Time
D) Seek Time/Latency Time

8. Which of the following is the incorrect statement regarding primary memory?
A) Primary memory is used for permanent storage.
B) Primary memory is faster than secondary memory.
C) Primary memory is a static device.
D) Primary memory consumes less power.

9. What does GUI stand for?
A) General User Interface
B) Graphical User Internet
C) General User Instruction
D) Graphical User Interface

10. What is the base value of a hexadecimal number system?

A) 4

B) 16

C) 8

D) 10

11. Which of the following is a utility software?

A) Operating System

B) Power Point

C) Online Banking Software

D) Antivirus Software

12. Which of the following is an output device?

A) Mouse

B) Microphone

C) Bar Code Reader

D) Plotter

13. Which of the following is incorrect for DBMS?

A) Provide Data Integrity

B) Provide Data Consistency

C) Maximize Data Redundancy

D) Provide Data Sharing

14. Which of the following is not a system software?

A) Operating system

B) MS-Word

C) Compiler

D) Interpreter

15. E-R model is used to represent relationships between different ....
of a system.
A) Attributes
B) Entities
C) Datasets
D) All of the above

16. Delay between job-submission and job-completion is called ....
A) Compilation Time
B) Execution Time
C) Turnaround Time
D) Waiting Time

17. Which of the following is not an input device?
A) Mouse
B) Printer
C) Keyboard
D) Microphone

18. The key of a table which is used for referencing the other table is known as
....
A) Super key
B) Primary key
C) Foreign key
D) Candidate key

19. Which of the following is not a part of CPU?
A) CU
B) ALU
C) Main memory
D) Registers

20. A file in which the data is updated after every data manipulation operation is called ....

A) Master File

B) Work File

C) Transaction File

D) Database File

21. An array is a/an .... data type.

A) Primary

B) User defined

C) Complex

D) None of the above

22. Which of the following is a characteristic of an algorithm?

A) It must terminate after a finite number of steps.

B) It may have some ambiguity.

C) No need of any input.

D) No output is expected from an algorithm.

23. Which of the following is not a keyword in C language?

A) if

B) float

C) scanf

D) while

24. Which of the following is a limitation of using flow-chart?

A) Communicates effectively

B) Help in development of program

C) Changes in logic are not permitted

D) Making flowchart is simple

25. Infrared signals range between ....
A) 300 Giga Hz—400 Tera Hz
B) 300 Mega Hz—400 Giga Hz
C) 300 Mega Hz—400 Tera Hz
D) 30 Mega Hz—40 Mega Hz

26. An effective network security strategy requires identification of ....
A) Threats and risk only
B) Risk and vulnerabilities only
C) Vulnerabilities only
D) Threat, risk and vulnerabilities

27. Which of these is not a keyword in C programming?
A) for
B) double
C) array
D) switch

28. Which of the following is not a mode of transmission?
A) Simplex mode
B) Half-Duplex mode
C) Full-Duplex mode
D) Mix mode

29. Which of the loop instructions would be used for the situation where the number of iterations of the loop is known before the loop is started ?
A) do---while
B) while
C) for
D) nested-if

30. The OSI model comprises of .... layers.
A) Two
B) Four
C) Eight
D) Seven

31. Network Interface Card (NIC) provides:
A) Boosting of network signal
B) Connection between LAN
C) Physical connection between the network and computer
D) Connection between twisted pair and optic fiber

32. .... is an input device that optically 'reads' an image and converts it into a digital signal.
A) Printer
B) Mouse
C) Keyboard
D) Scanner

33. Walkie-Talkie is an example of ....
A) Simplex Communication
B) Full-Duplex Communication
C) Half-Duplex Communication
D) Mixed Communication

34. Which of the following is not a type of computer virus?
A) Boot infector
B) System infector
C) Raindrops
D) Boot sector

35. Which device boost's a network's signal as it passes through it?
A) Repeater
B) Network Interface Card
C) Bridge
D) Hub

36. Which network covers the geographic area of the size of an entire city?
A) LAN
B) MAN
C) PAN
D) WAN

37. Following are two statements regarding modems:
X: An internal modem is plugged into an expansion slot inside your PC.
Y: An external modem has control and status-lights that can be used to monitor the transmission.
A) Both X and Y are true.
B) Both X and Y are false.
C) X is true, Y is false.
D) X is false, Y is true.

38. Which of the following refers to physical connection between nodes and network?
A) Transmission mode
B) Topology
C) Encoding
D) Circuit Switching

39. Fiber Distributed Data Interface (FDI) is an example of ....
A) Bus topology
B) Tree topology
C) Star topology
D) Ring topology

40. In the context of computer networks, a bridge understands the ....
address.
A) Application Layer
B) Data Link Layer
C) Network Layer
D) Transport Layer

41. Network architecture in which various computers on the network can act both
as client and server is called as ....
A) Client-Server based network
B) Peer-to-peer network
C) Bus network
D) Telephone network

42. An attribute whose value can be calculated from another attribute is known as
....
A) Key attribute
B) Multivalued attribute
C) Derived attribute
D) Cardinality

43. Which component of information security deals with correctness of
information?
A) Integrity
B) Confidentiality
C) Availability
D) Privacy

44. In information security CIA refers to ....
A) Connectivity, Information and Affordability
B) Confidentiality, Integrity and Availability
C) Confidentiality, Intensity and Affordability
D) Correctness, Integrity and Availability

45. A system infected by Boot Infector will have the virus residing in ....
A) The programs that starts the execution of OS files
B) A program file
C) An executable program
D) A non-executable program

46. Information security is not concerned with ....
A) Confidentiality
B) Availability
C) Integrity
D) Affordability

47. Denial-of-Service (DoS) attack ....
A) Send large volume of traffic to a critical network element
B) Alters the data packets being transmitted
C) Send sensitive information from inside your organization
D) Execute program files

48. Which of the following does not belong to virus category?
A) Boot infectors
B) System infectors
C) General executable program infectors
D) Specialized executable program infectors

49. .... is associated with the comparison of processing speed of different computer systems.
A) MIPS
B) CPS
C) EFTS
D) EOF

50. Which symbol represents the processing in the flow- chart?
A) Rhombus
B) Rectangle
C) Ellipse
D) Circle