लोक सेवा आयोग

प्राविधिक शिक्षा तथा व्यावसायिक तालिम परिषद्, प्रशिक्षण इन्जिनियरिङ, कम्प्युटर, सहयाकस्तर प्रथम, कम्प्युटर सहायक प्रशिक्षक पदको खुला प्रतियोगिता लिखित परिक्षा

२०८१-०८-१७

समयः ४५मिनेट   **KEY[D)**

Multiple Choice   **50*2=100 Marks**

1. **Which of the following is an attribute that can uniquely identify a row in a table?**
   A) Secondary key   B) Candidate key
   C) Foreign key   D) Alternate key

2. **Which of the following levels in ANSI/SPARC architecture is related to how data are actually stored in the databased?**
   A) Physical level   B) Logical level
   C) View level   D) External level

3. **What is a program in execution called?**
   A) Paging   B) Process   C) Virtual memory   D) Demand page

4. **Which mode loads a minimal set of drivers when starting windows?**
   A) Safe mode   B) Normal mode   C) VGA mode   D) Network support mode

5. **Which of the following algorithms chooses the page that has not been used for the longest period of time whenever the page required to be replaced?**
   A) First in first out algorithm   B) Additional reference bit algorithm
   C) Least recently used   D) Counting based page replacement algorithm

6. **Using CHMOD, if we want to give ALL permissions to a user, which mode is used?**
   A) 666   B) 667   C) 776   D) 777

7. **An increase in a computer RAM leads to a typical improvement in performance because**
   A) fewer page faults occur   B) virtual memory increases
   C) fewer segmentation faults occur   D) a lager RAM is fater

8. **Which memory management does not provide the user's program with a linear and contiguous address space?**
   A) Paged memory management   B) Single contiguous
   C) Partitioned allocation   D) Segmented memory management

9. **CPU scheduling is the basis of which of the following systems?**

A) Multiprogramming operating system   B) Larger memory sized system
C) Multiprocessor system   D) Multiuser system

10. **Which of the following principles of object-oriented programming is demonstrated when a single function name can be used for different types of actions?**
A) Encapsulation   B) Polymorphism
C) Inheritance   D) Abstraction

11. **The keyword used to define non-access modifier in JAVA programming is …….**
A) static   B) final   C) const   D) public

12. **How are strings represented in memory in C?**
A) Same as other primitive data type   B) The object of same class
C) An array of characters   D) Linked list of characters

13. **Automatic initialization of object is carried out using a special member function called …..**
A) Friend   B) Casting
C) Reference Parameter   D) Constructor

14. **A hard disk is divided into tracks, which are further subdivided into ………..**
A) Clusters   B) Sectors   C) Vectors   D) Blocks

15. **The only command-oriented OS is ……**
A) Ubuntu   B) Windows   C) MAC   D) DOS

16. **A batch file is a script file that stores commands to be executed in …. Order.**
A) Serial   B) Parallel   C) LIFO   D) Alphabetical

17. **Which of the following is the high-speed memory between main memory and CPU?**
A) Register memory   B) Cache memory
C) Virtual memory   D) Register

18. **In computer, all calculations are performed in ………….**
A) Control unit   B) Memory unit
C) Arithmetic and Logic unit   D) Register

19. **Which is valid statement?**
A) 1 KB 1024 Bytes   B) 1 MB 1024 Bytes
C) 1 KB 1000 Bytes   D) 1 MB 1000 Bytes

20. Which of the following is a capacitor based storage unit?

A) SRAM B) ERAM C) DRAM D) EERAM

21. Which of the following entities does not belong to word processing?

A) Paragraphs B) Cells C) Words D) Characters

22. A PowerPoint design template is stored in any file with ……. Extensions

A) pot B) dtp C) ptt D) ppt

23. Which of the following networks is accessible to only authorized users outside the organization?

A) Internet B) Intranet C) Extranet D) LAN

24. Superscript, subscript, outline, emboss, engrave are known as part of ………

A) Text Effects B) Font Style C) Font Effects D) Word Art

25. What is the short cut for inserting a pagebreak in MSWord?

A) Ctrl + break B) Ctrl + tab C) Ctrl + space D) Ctrl + enter

26. In word processing, the task of changing the appearance of a document is called ……

A) Editing B) Proofing C) Inserting D) Formatting

27. Computer virus is ……….

A) a computer disease B) a set of instructions/program code

C) a bacteria D) a system software

28. Which of the following is the first line of HTTP request message?

A) Request line B) Header line C) Status line D) Entity line

29. Which layer of OSI model does DNS belong to?

A) Network layer protocols B) Transport layer protocols

C) Session layer protocols D) Application layer protocols

30. Which of the following protocols is used by VPN?

A) Tunneling protocols B) Applicationlevel protocols

C) Network protocols D) Mailing protocols

31. Which of the following is false with respect to TCP?

A) Connection oriented B) Process to process

C) Transport layer protocols D) Unreliable

32. Attempting to acquire sensitive information by redirecting the user to a fake website is usually called …………

A) Spooting B) Phishing C) URL redirection D) URL hijacking

33. **Which of the following multiple access techniques is used by IEEE 802.11 standard for wireless LAN?**

A) CDMA   B) CSMA/CA   C) CSMA/CD   D) ALOHA

34. **Which layer does Port Addressing belong to?**

A) Application layer   B) Network layer
C) Transport layer   D) Data link layer

35. **Which of the following devices assigns IP address to devices connected to a network that uses TCP/IP?**

A) DHCP Server   B) NIC   C) Gateway   D) DNS Server

36. **Which of the following layers is responsible for process to process delivery in TCP/IP model?**

A) Application layer   B) Internet layer
C) Transport layer   D) Network access layer

37. **Which of the following traversal techniques is equivalent to depth first search?**

A) Pre-order   B) Post-order   C) Level-order   D) In-order

38. **In which of the following categories does Dijkstra's algorithm belong to?**

A) Dynamic programming   B) Backtracking
C) Branch and bound   D) Greedy

39. **Recursion is achievable using**

A) Array   B) Tree   C) Queue   D) Stack

40. **The goal of hashing is to produce a search that takes …… time.**

A) $O(1)$ B) $O(n2)$ C) $O(\log n)$ D) $O(n \log n)$

41. **Infix to postfix conversion is possible using ………..**

A) Stack   B) Queue   C) Array   D) Tree

42. **Shortest path between source and destination can be calculated effectively with**

A) DFS   B) BFS
C) Dijkstra's algorithm   D) Prim's algorithm

43. **Which of the following binary search tree traversal technique displays information in ascending order?**

A) In-order   B) Pre-order   C) Post-order   D) No-order

44. Which data structure is one ended?

A) Queue   B) Stack   C) Tree   D) Graph

45. Which of the following SQL commands is used for removing (or deleting) a relation from the database?

A) Drop   B) Delete   C) Rollback   D) Remove

46. Which of the following query is correct for using comparison operators in SQL?

A) Select from student where age> 50 and <80
B) Select from student where age > 50 and age < 80
C) Select from student where age > 50 and where age < 80
D) Select from student where age 50 <and age < 80

47. Relation R1 has 10 tuples and 5 attributes. Relation R2 has 0 tuples attributes. When a cross JOIN is achieved between R1 and R2 how many tuples would the resultant set have?

A) 0   B) 10   C) 35   D) 50

48. Which of the following dependencies is used by 5NF?

A) Functional dependency   B) Join dependency
C) Multivalued dependency   D) Partial dependency

49. A file manipulation command that extracts some of the records from a file is called.

A) Select   B) Project   C) Join   D) Product

50. What is the difference between restoring and recovering a database?

A) Both are same
B) Restoring is the process of copying backup files from backup media to disk. Recovery is the process of applying redo logs to the database to roll it forward
C) Restoring is the process of rolling back the database to a previous time. Recovery is the process of copying backup files from backup media to disk
D) Restoring is the process of rolling back the database to a previous time. Recovery is the process of recovering the database from a critical system failure

1. (B)	2. (A)	3. (B)	4. (A)	5. (C)	6. (D)	7. (A)	8. (D)	9. (A)	10. (B)
11. (B)	12. (C)	13. (D)	14. (B)	15. (D)	16. (A)	17. (B)	18. (C)	19. (A)	20. (C)
21. (C)	22. (A)	23. (C)	24. (C)	25. (D)	26. (D)	27. (B)	28. (A)	29. (D)	30. (A)
31. (D)	32. (B)	33. (B)	34. (C)	35. (A)	36. (A)	37. (A)	38. (D)	39. (D)	40. (A)
41. (A)	42. (C)	43. (A)	44. (B)	45. (A)	46. (B)	47. (A)	48. (B)	49. (A)	50. (B)