CUET Computer Science Mock Test (50 Questions)

Total Marks: 200
Duration: 60 Minutes

Instructions:
- The test consists of 50 multiple-choice questions (MCQs).
- Each correct answer carries 5 marks.
- Each incorrect answer carries a penalty of 1 mark.
- No marks are deducted for unanswered questions.
- Attempt all questions.

Section 1: Computer Science (25 Questions, 125 Marks)

1. Which of the following is an immutable data type in Python?
   a) List
   b) Dictionary
   c) Tuple
   d) Set

2. What will be the output of print(2**3**2) in Python?
   a) 64
   b) 512
   c) 256
   d) 9

3. What is the time complexity of a binary search algorithm in the worst case?
   a) O(n)
   b) O(log n)
   c) O(n log n)
   d) O(1)

4. Which SQL command is used to remove a table from a database?
   a) DELETE
   b) REMOVE
   c) DROP
   d) TRUNCATE

5. Which sorting algorithm is the most efficient in the worst case?
   a) Bubble Sort
   b) Selection Sort

c) Merge Sort
d) Insertion Sort

6. Which keyword is used to define a function in Python?
   a) define
   b) function
   c) def
   d) fun

7. What does the finally clause do in exception handling?
   a) Runs only if an exception occurs
   b) Runs only if no exception occurs
   c) Always runs after try-except
   d) Prevents exception handling

8. Which of the following follows LIFO?
   a) Queue
   b) Stack
   c) Linked List
   d) Tree

9. Which SQL function counts rows in a table?
   a) TOTAL()
   b) COUNT()
   c) SUM()
   d) AVERAGE()

10. What is the output of print(len(set([1,2,2,3,4,4,5])))?
    a) 7
    b) 5
    c) 6
    d) 4

11. Which of the following is a relational database?
    a) MySQL
    b) MongoDB
    c) Redis
    d) Neo4j

12. Which SQL clause filters grouped data?
    a) WHERE

b) GROUP BY
c) HAVING
d) ORDER BY

13. What will be the output of print('hello'.upper())?
    a) Hello
    b) HELLO
    c) hello
    d) error

14. Which of the following is NOT a valid Python loop?
    a) while
    b) do-while
    c) for
    d) None

15. Which SQL command retrieves all records from a table?
    a) FETCH *
    b) SELECT *
    c) GET *
    d) VIEW *

16. What is the function of strip() in Python?
    a) Removes whitespace from strings
    b) Converts string to uppercase
    c) Finds substrings
    d) Splits a string

17. What is the default port for MySQL?
    a) 1433
    b) 3306
    c) 5432
    d) 1521

18. Which Python function reads a file line by line?
    a) read()
    b) readline()
    c) readlines()
    d) readfile()

19. What is the correct way to create an empty set in Python?
    a) {}
    b) set()
    c) []
    d) set([])

20. Which command displays the structure of a table in MySQL?
    a) DESCRIBE table_name;
    b) SHOW table_name;
    c) SELECT * FROM table_name;
    d) DISPLAY table_name;

21. Which operator is used for exponentiation in Python?
    a) ^
    b) **
    c) *
    d) /

22. Which network device operates at the Data Link Layer?
    a) Hub
    b) Router
    c) Switch
    d) Firewall

23. Which searching algorithm has O(1) complexity in best case?
    a) Linear Search
    b) Binary Search
    c) Hashing
    d) DFS

24. Which keyword is used to create a class in Python?
    a) class
    b) object
    c) def
    d) struct

25. Which of the following is a correct dictionary declaration in Python?
    a) {1, 2, 3}
    b) {1: "a", 2: "b"}
    c) [1, 2, 3]
    d) (1, 2, 3)

Section 2: Computer Networks & Cybersecurity (25 Questions, 75 Marks)

26. Which device connects different networks?
    a) Hub
    b) Router
    c) Switch
    d) Repeater

27. What is the full form of DNS?
    a) Data Naming System
    b) Domain Name System
    c) Dynamic Name Service
    d) Digital Network Service

28. Which protocol is used for secure web communication?
    a) HTTP
    b) FTP
    c) HTTPS
    d) SSH

29. What is a firewall used for?
    a) Encrypting network data
    b) Filtering traffic
    c) Increasing internet speed
    d) Compressing data

30. Which protocol is used for sending emails?
    a) SMTP
    b) POP3
    c) IMAP
    d) HTTP

31. Which encryption method is commonly used in Wi-Fi security?
    a) WEP
    b) WPA2
    c) SSL
    d) TLS

32. Which of the following is an example of a cyber attack?
    a) Phishing
    b) DDoS

c) Man-in-the-Middle
d) All of the above

33. Which of the following is a type of malware?
    a) Trojan Horse
    b) Firewall
    c) VPN
    d) Bandwidth

34. Which law governs cybercrime in India?
    a) IPC
    b) IT Act, 2000
    c) Cyber Protection Act, 2018
    d) None of the above

35. What is phishing?
    a) A way to hack a website
    b) Sending fraudulent emails to steal personal data
    c) Spreading malware via USB
    d) A type of hacking tool

36. Which encryption method is used in Wi-Fi security?
    a) WPA
    b) HTTPS
    c) SSH
    d) FTP

37. What is the function of ARP in networking?
    a) Converts IP addresses to MAC addresses
    b) Converts domain names to IP addresses
    c) Encrypts network data
    d) Prevents hacking

38. Which layer of the OSI model is responsible for logical addressing?
    a) Physical Layer
    b) Data Link Layer
    c) Network Layer
    d) Transport Layer

39. What is the function of the Transport Layer in networking?
    a) Route data packets
    b) Provide reliable data transmission

c) Convert data into signals
d) Secure data transfer

40. Which of the following is a valid IPv4 address?
    a) 192.256.1.1
    b) 192.168.1.255
    c) 300.15.20.5
    d) 1000.10.10.10

41. What is the full form of MAC in networking?
    a) Media Access Control
    b) Machine Access Code
    c) Mobile Access Configuration
    d) Main Address Control

42. Which of the following is a technique used in hacking?
    a) Phishing
    b) Firewall
    c) VPN
    d) Proxy Server

43. Which type of attack floods a network with excessive requests, causing it to crash?
    a) SQL Injection
    b) Man-in-the-Middle
    c) DDoS Attack
    d) Phishing

44. What is the default subnet mask for a Class B IPv4 address?
    a) 255.255.0.0
    b) 255.0.0.0
    c) 255.255.255.0
    d) 255.255.255.255

45. Which type of virus attaches itself to legitimate programs and executes when the program runs?
    a) Worm
    b) Trojan Horse
    c) Rootkit
    d) File Infector

46. Which security measure is used to protect passwords from being exposed in plaintext?
    a) Encryption
    b) Firewall
    c) MAC Address Filtering
    d) VPN

47. Which network layer protocol translates domain names into IP addresses?
    a) DHCP
    b) DNS
    c) ARP
    d) ICMP

48. Which security attack attempts to gain unauthorized access by trying many password combinations?
    a) Phishing
    b) Brute Force Attack
    c) SQL Injection
    d) Keylogger

49. What does SSL stand for in cybersecurity?
    a) Secure Socket Layer
    b) System Security Layer
    c) Software Secure Link
    d) Secure System Login

50. Which of the following is a hardware-based security measure?
    a) Firewall
    b) Antivirus Software
    c) VPN
    d) Biometric Authentication