1. The Huffman encoding is

A greedy technique | An encoding technique | A data compression technique | All of the above

2. What is the range of ASCII codes?

0-110 | 0-127 | 0-101 | 0-172

3. In variable length assignment, the most frequent characters gets the _____ code.

Smallest | Longest | Equal | None of the above

4. In variable size encoding, we arrange all the alphabets in _____ order of their count.

Increasing | Decreasing | Either of the above | None of the above

5. Which of these is the best approach for Huffman encoding?

Exhaustive search | Greedy method | Brute force algorithm | Divide and conquer approach

6. In Huffman encoding, the data in a tree always occur?

Root | Leaves | Left subtree | Right subtree

7. What is the time complexity of Huffman encoding algorithm?

O (n) | O (log n) | O (n log n) | None of the above

8. In variable length assignment, the least frequent characters gets the _____ code.

Smallest | Longest | Equal | None of the above

9. Suppose the message is 'BCCABBDDAECCBBAEDDCC'. What will be the cost of sending the message using ASCII encoding?

20 | 8 | 160 | 28

10. Suppose the message is 'BCCABBDDAECCBBAEDDCC'. In The smallest code should be assigned to ____ alphabet.

A | B | C | D

E

11. Suppose the message is 'BCCABBDDAECCBBAEDDCC'. In The longest code should be assigned to ____ alphabet.

A | B | C | D

E

12. Out of these methods, which one will have least cost?

ASCII encoding | Fixed size encoding | Variable size encoding | All will have same cost

13. Out of these methods, which one will have most cost?

ASCII encoding | Fixed size encoding | Variable size encoding | All will have same cost

14. Which data structure is used in Huffman encoding?

Stack | Graph | Min-heap | Max-heap

15. What is the time taken by min-heap for Huffman encoding?

O (n) | O (log n) | O (1) | None of the above

16. The comparison tree are used for

Searching | Sorting | Both searching and sorting | None of the above

17. The concept of lower bound theory is based upon calculation of

Minimum execution time | Maximum execution time | Both minimum and maximum execution time | None of the above

18. In travelling salesman problem, the salesman has to find a path which gives the _____ cost.

Minimum | Maximum | Zero | Any of the above

19. An n*n matrix 'A' whose elements are $a_{ij} = 0$ for $i > j$, then it is a _____ triangular matrix.

Upper | Lower | Medium | None of the above

20. An n*n matrix 'A' whose elements are $a_{ij} = 0$ for $i < j$, then it is a _____ triangular matrix.

Upper | Lower | Medium | None of the above

21. For matrix multiplication, the number of _____ of first matrix must be equal to number of _____ of second matrix.

Row, row | Column, column | Row, column | Column, row

22. The two main measures for the efficiency of an algorithm are

Processor and memory	Complexity and classes	Time and space	Data and space

23. The time factor when determining the efficiency of algorithm is measured by

Counting microseconds	Counting the number of key operations	Counting the kilobytes of algorithm	None of the above

24. Which of these cases does not exist in complexity theory?

Best case	Average case	Worst case	Null case

25. Choose the correct answer for the following statements:

I. The theory of NP–completeness provides a method of obtaining a polynomial time for NP algorithms.

II. All NP-complete problem are NP-Hard.

I is FALSE and II is TRUE	I is TRUE and II is FALSE	Both are TRUE	Both are FALSE

26. _____is the first step in solving the problem

Understanding the Problem	Identify the Problem	Evaluate the Solution	None of these

27. _____ is the maximum number of steps that can executed for the given parameters

Average case	Worst case	Time complexity	Best case

28. O(1) means computing time is _____

Constant	Quadratic	Linear	Cubic

29. O(n) means computing time is _____

Constant	Quadratic	Linear	Cubic

30. An algorithm that calls itself directly or indirectly is known as

Sub algorithm	Recursion	Polish notation	Traversal algorithm