Paper Code - 3688

M.Sc. (C.A. & IT) Semester-III (New Course)
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303 Introduction To Algorithm

કુલ સમય :– : ૬૦ મીનીટ કુલ પ્રશ્નો : ૫૦ વિદ્યાર્થીએ ટીક કરવાના પ્રશ્નો : ૩૫

નોંધ : વિદ્યાર્થીએ માત્ર ૩૫ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૩૫ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.

1 Evaluate postfix string : 623+-7*2$2+
A. 51 B. 47 C. 49 D. None of these

2 Two main measures for the efficiency of an algorithm are
A. Processor and memory B. Time and space C. Complexity and capacity D. Data and space

3 Which is the recursive formula for sum of natural number problem?
A. F(n) = F(n-1) + n B. F(n) = F(n-1) * n C. F(n) = F(n-2) + F(n-1) D. None of these

4 In Algorithm comments begin with _____
A. /* B. / C. */ D. //

5 ORD is stands for:
A. Operation Restore Dequeue B. Output Restore Dequeue
C. Output Restricted Dequeue D. None of these

6 Convert infix to postfix : A+B * C
A. AB+c* B. ABC*+ C. ABC+* D. None of these

7 Convert infix to prefix : P * Q / R
A. */PQR B. *PQ/R C. /*PQR D. None of these

8 The logical or mathematical model of a particular organization of data is called.....
A. Data structure B. Data arrangement C. Data configuration D. Data formation

9 An elements of array are compared with mid elements. Such type of searching is called.....
A. Binary Search B. Linear Search C. Two way search D. None of these

10 The complexity of merge sort algorithm is.....
A. O(n) B. O(n2) C. O(n log n) D. O(log n)

11 Which is not stack operation?
A. Push B. Pop C. Pick D. None of these

12 _____ is the graphical solution for a given problem
A. Flowchart B. Algorithm C. Program D. None of these

13 Stack is _____data structure
A. Last In First Out B. First In First Out C. Non linear D. None of these

14 Which is not queue application.
A. Scheduling B. Simulation C. Reversal of string D. None of these

15 Which is stack application.
A. Polish notation B. Tower of Hanoi C. Reversal of string D. All of these

16 Which method has less comparison?
A. Binary search B. Linear search C. Both A & B D. None of these

17 Dequeue is stands for:
A. Double equal queue B. Double ended queue C. Direct ended queue D. None of these

18 Which of the following case does not exist in complexity theory?
A. Best case B. Worst case C. Average case D. Null case

19 Which is the recursive formula for factorial problem?
A. F(n) = F(n-1) + n B. F(n) = F(n-1) * n C. F(n) = F(n-2) + F(n-1) D. None of these

20 IRD is stands for:
A. Invalid Restore Dequeue B. Input Restricted Dequeue
C. Invalid Restricted Dequeue D. None of these

21 Which of the following data structures are indexed structures?
A. Linear arrays B. Linked lists C. Queue D. Stack

22 Which of the following is non-linear data structure?
A. Stacks B. List C. Strings D. Graph

23 _____ is the complexity of bubble sort method.
A. O(n) B. O(n2) C. O(log n) D. None of these

24 ____is not the operation that can be performed on queue.
A. Insertion B. Deletion C. Retrieval D. Traversal

25 Which is not recursive equation?
A. F(n)=f(n-1) + n B. F(n)=f(n-1) * n C. F(n)=3n+25 D. None of these

26 Radix sort is also called as..
A. Random sort B. Pocket sort C. Tree sort D. None of these

27 Which searching method has more comparison?
A. Linear search B. Binary search C. Two way search D. None of these

28 _____ is the data item which stores the address of another data item.
A. Array B. Pointer C. Union D. None of these

29 Which equation is used to reduce distance in shell sort method?
A. d = n / 2 B. d = d / 2 C. d= n * d / 2 D. None of these

30 Which is non-primitive data structure?
A. Pointer B. Array C. Int D. None of these

31 _____ is the process of step by step solution for a given problem.
A. Asymptotic notation B. Algorithm C. Flowchart D. Program

32 Which method has less comparison?
A. Bubble sort B. Selection sort C. Insertion sort D. All of these

33 How many passes are required in bubble sort method.
A. n-1 B. n = n / 2 C. Total max. Number of digits D. None of these

34 What is complexity of binary search method.
A. o(log 2n) B. O(n2) C. O(n) D. None of these

35 A function calls itself is called.....
A. Polish Notation B. Non-Recursion C. Recursion D. None of these

36 Which is not type of array?
A. One dimensional B. Two dimensional C. Three dimensional D. All of these

37 Which is not application of stack?
A. Stack machine B. Tower of Hanoi C. Reversal of String D. Scheduling

38 Structure name is also referred to as.....
A. Object B. Template C. Tag D. None of these

39 Which keyword is used to declare union.
A. Union B. Declare C. Struct D. None of these

40 Which is not polish notation?
A. Infix B. Prefix C. Postfix D. None of these

41 Which of the following data structure is linear type
A. Graph B. Trees C. Binary Tree D. Stack

42 Which data structure is performed insertion and deletion operations at both ends.
A. Dequeue B. Stack C. Array D. None of these

43 Set of vertices, set of edges that connect the nodes is called _____
A. Linked list B. Tree C. Graph D. None of these

44 Which of the following data structure is non-linear type
A. Array B. Stack C. Queue D. Tree

45 How many passes are required in radix sort method.
A. n-1 B. n = n / 2 C. Total max. Number of digits D. None of these

46 Quick sort is also called as...
A. Exchange sort B. Partition exchange sort C. Tree sort D. None of these

47 Which is FIFO data structure?
A. Queue B. Stack C. Array D. None of these

48 Which is sequential search method?
A. Binary search B. Linear search C. Both A & B D. None of these

49 Which is recursive mathematical equation for Fibonacci problem?
A. f(n) = f(n) – n B. f(n) = f(n) * n C. f(n) = f(n-2) + f(n-1) D. None of these

50 What is the base value for factorial problem or 0!=___?
A. 0 B. 1 C. N D. None of these