Algorithms Design And Analysis MCQS with Answers Set 1

Algorithms Design And Analysis MCQS with Answers

Algorithms Design And Analysis MCQS with Answers is mainly intended fro GATE aspirants.These questions can also came in Btech Computer science university exams and various interview for computer science students

(01) Which of the following properties are necessary for an Algorithm?

(A) Definite ness (B) correct ness (C) Effectiveness (D) A and C

(02) which of the following technique is not using for solve a 0-1knapsack problem

(A) Greedy (B) Dynamic programming (C) branch and bound (D) all of the above

(03)For the following program gives Big O analysis of the running time (in terms of n)

For (i=0; i<n; i++)

A[i] = +;

(A) O(n-1) (B) O(n) (C) O(n2) (D) O(log n)

(04) For the following program gives Big O analysis of the running time (in terms of n)

For (i=0; i< n; i++)

For (j=i; j< n; j++)

For (k=j; k< n; k++)

S++;

(A) O(n-1) (B) O(n2) (C) O(n3) (D) O(log n)

(05) For the following program gives Big O analysis of the running time (in terms of n)

For (i=0; i < n\*n; i++)

A[i] = i;

(A) O(n-1) (B) O(n2) (C) O(n3) (D) O(log n)

(06) Given f(n) = log2n, g(n) = √n which function is asymptotically faster

(A) f(n) is faster than g(n) (B) g(n) is faster than f(n)

(C) Either f(n) or g(n) (D) Neither f(n) nor g(n)

(07) Which of the following are true

(a) 33n3 + 4n2 = p (n2) (b) n! = O(nn) (c) 10n2+ 9 = O(n2) (d) 6n3 /(log n +1) = O(n3)

(A) a,b and c (B)a and c (C) a and b (D) all are true

(08) n! =

(A) O( 2n) (B) ω(2n) (C) A and B (D) O(n100)

None-

(09) T (n) = 8T (n/2) + n2, T (1) = 1 then T (n) =

(A) ϴ (n2) (B) ϴ (n3) (C) ϴ (n4) (D) ϴ (n)

(10) T (n) = 3T (n/4) + n then T (n) =

(A) O (n2) (B) O (n3) (C) O (n) (D) O (n4)

(11) T (n) = 4T (n/2) + n then T (n) =

(A) ϴ (n2) (B) ϴ (n3) (C) ϴ (n4) (D) ϴ (n)

(12) T (n) = 2T (n/2) + cn then T (n) =

(A) O (log n) (B) O (n log n) (C) O (n2log n) (D) O (n2)

(13) T (n) = 2T (n/2) + n2 then T (n) =

(A) ϴ (n2) (B) ϴ (n3) (C) ϴ (n4) (D) ϴ (n)

(14) T (n) = 2T (n/2) + n2 then T (n) =

(A) O (n3) (B) O (n2) (C) O (n) (D) O (n4)

(15) T (n) = 9T (n/3) + n then T (n) =

(A) ϴ (n4) (B) ϴ (n3) (C) ϴ (n2) (D) ϴ (n)

Algorithms Design And Analysis MCQS with Answers'

1 D

2 A

3 B

4 C

5 B

6 A

7 D

8 C

9 B

10 C

11 A

12 B

13 A

14 B

15 C

This entry was