

Alumnus Technical - C & C++

Each question had 5 options. There were 25 questions in all and all were Objective Type.

- 1 When compiled from command line what are linking options?
- 2 You have written a code in C++, and you have to use a C library, what would you do?
(Ans: write extern "c" in header files)

- 3 Fiber optic backbone is in which OSI layer?

```
4 void main()
{
    int x=1;
    int y=1;
    int i;
    for(i=2;i<=100;i++)
    {
        x=x+i;y=y*(i+1)/(i-1);
    }
}
```

What are the values of x & y?

- 5 If we carry out operation $(-3)+(-6)$, then which of the what will be the value of carry and sign flag?
- 6 void abc(int a[])

```
{
    int k=0;int j=50;
    while(k<j)
    {
        if(a[i]>a[j])
            k++;
        else
            j--;
    }
}
```

How many times the loop will occur?

7 Integrate $e^{(x^2-2)}dx$, with limits $-\infty$ to $+\infty$? What is the final value?

8 Let p be a 16 bit number. The 2's complement of p will be represented by?

```
9 void main()
{
    int a[]={5,4,3,2,1};
    int x,y;
    int *p=&a[2];
    *p++;
    x=++*p;
    y=*(p++);
    printf("%d %d",x,y),
}
```

What will be the value of x and y ?

10 Let there be a set of 3 numbers. Then number of groups possible?

11 A question on some technique used in DA-converter?

12 Which data structure to use for fastest search?

13 A binary tree contains 1024 elements. What is maximum number of comparisons needed to search an element?

14 $s=1-1/4+1/16-1/32+\dots$. What is the value of S ? (Ans = 0.8 Hint Its a GP)

15 A C++ class has multiple references to base class. Then some options were given?

16 `for(i=0;i<20;i++)`

```
{
    a[i]=i;
}
for(i=0;i<20;i++)
{
    a[i]=a[19-i];
}
```

What is final value of array a ? Options were there.

17 In Java can a variable be initialised inside a loop?

18 Two dices are thrown. What is the probability that the number on the first dice is greater or equal to number on the second dice?