

Yahoo Inc Placement Process details

Yahoo! Inc. (NASDAQ: YHOO) is an American public corporation with headquarters in Sunnyvale, California, (in Silicon Valley), that provides Internet services worldwide. The company is perhaps best known for its web portal, search engine (Yahoo! Search), Yahoo! Directory, Yahoo! Mail, Yahoo! News, advertising, online mapping (Yahoo! Maps), video sharing (Yahoo! Video), and social media websites and services.

Yahoo! was founded by Jerry Yang and David Filo in January 1994 and was incorporated on March 1, 1995. On January 13, 2009, Yahoo! appointed Carol Bartz, former executive chairperson of Autodesk, as its new chief executive officer and a member of the board of directors. Recently it has been visiting campuses for the recruitment spree...

Offer by the company:

Eligibility:

B.Tech (CSE/MATH)

Salary:

CTC- 8.0 (APPROX) LPA

Profile Offered:

Software Engineer

Placement Process Detail:

The process followed by Yahoo India was:

- 1) Short listing on basis of CGPA
- 2) Written Test
- 3) Interview

Shortlisted on the basis of CGPA

Written Test:

Questions: 25 questions time 1 hour.

All Questions are multiple types

1. Teacher asked the students to find the cube root of a natural number but she did not mention the base. Students assumed the base found the cube root. Each student got an integer. Find the sum of digits of that number.

- A. 0 B. 1 C. 6 D. 7 E. 8

2. What is the difference of last two digits of N where $N=7^{2010}$

- a.1 b.3 c.5 d.7 e.9

3. Find the first non Zero digit in $67!$ (Factorial)

- a.3 b.4 c.5 d.6 e.7

4. Suppose here are n processes in the system and each one needs k instances of a resources to complete. What would be the minimum number of resources that you should keep in the system to ensure no deadlock in the system.].

- a. $n*k$ b. $n*k-n+1$ c. $n*k+1$ d. $n*k*k$ e. None of the above

5. If we have a ring counter of 4 bits, with an initial state of 1000, what is the modulus of the counter?

- a.16 b.8 c.32 d.4 e. None of the above

6. Which of the following masks can be used to zero out alternate bits of a 16 bit number?

- a.0101 b. AAAA c. FFFF d. EEEE e. BBBB

7. We define a function below. What is the value returned by this function: express your answer as a function of n ?

```
unsigned int func(unsigned int n)
```

```
{
```

```
  unsigned int r=0;
```

```
  unsigned int i,j,k;
```

```
  for(i=1;i<=n;i++) for(j=1;j<=i;j++) for(k=j;k<=i+j;k++) r++ return r; }
```

- a. $\text{func}(n)=\text{summation of } i*(i+1) \text{ with } i \text{ varying from } 1 \text{ to } n$
- b. $\text{func}(n)=n*n+1 + n*n-1$
- c. $\text{func}(n)=\text{func}(n-1)+n*n+n$ with $\text{func}(n)=0$
- d. $\text{func}(n)=\text{func}(n-1)+n*n+2$ with $\text{func}(n)=0$
- e. both a and c.

Question 8:

Which of the following statements about the datagram sent by a node in a network using IPv4 protocol is (are) true?

- i. Datagrams at the source must be the size of the smallest maximum transmission unit (MTU) of all the links on a path to the destination
- ii. Datagrams may be fragmented during routing
- iii. Datagrams are re-assembled at the destinations

A. I only B. II only C. III only D. I and III E. II and III

Question 9:

In a pipeline RISC computer all arithmetic instructions have the same CPI (Cycles per instructions), which of the following actions would improve the execution time of a typical program?

- i. Increasing the clock cycle rate
- ii. Disallowing any forwarding in the pipeline
- iii. Doubling the sizes of the instruction cache and the data cache without changing the clock cycle time

A. I only B. II only C. III only D. I and II E. I and III

Question 10:

Let $n(1), n(2), n(3), \dots, n(t)$ be positive integers. What is the minimum number N of objects to ensure that if N objects are placed into t boxes, for some l in $[1, t]$, box l contains at least $n(l)$ objects?

- i. $n(1) + n(2) + n(3) + \dots + n(t)$
- ii. $n(1) + n(2) + n(3) + \dots + n(t) + t - 1$
- iii. $n(1) + n(2) + n(3) + \dots + n(t) - t$
- iv. $n(1) + n(2) + n(3) + \dots + n(t) - t - 1$
- v. $n(1) + n(2) + n(3) + \dots + n(t) - t + 1$

Question 11.

```
#define scanf "%s is a string"
```

```
Main(){
```

```
Printf(scanf,scanf);
```

```
}
```

What is the output?

- A. C compiler error
- B. scanf is a string
- C. %s is a string is a string
- D. %s is a string

Question 12.

```
#define boo(x) x/4
```

```
Main(){
```

```
Int I;
```

```
I=64/boo(4);
```

```
Printf("%dn",I);
```

```
}
```

- A. Compiler time error
- B. 16
- C. 64
- D. 20
- E. Divide by Zero Error

Question 13.

What the following C function will do?

```
Unsigned int bitwise(unsigned int x)
```

```
{
```

```
    unsigned int r=x &-x;
```

```
    unsigned int l
```

```
    x+=r
```

```
    if(0==l)
```

```
        return 0;
```

```
    l=x &-x;
```

```
    l-=r;
```

```
    while(0==(l&l)
```

```
    {
```

```
        l>>=1;
```

```
    }
```

```
    return x|(l>>1);
```

```
}
```

A. Return the greatest integer smaller than x

B. Returns $x/2$

C. Returns the smallest integer greater than x with the same number of bits set

D. Returns the smallest integer greater than x with less number of bits set

E. None of the above

Question 14

```
int i
```

```
void increment(int i)
```

```
{
```

```
l++
```

```
}
```

```
Int main()
```

```
{
```

For(i=0;i<10; increment(i)) { } Printf("i=%d",i); Return 0; } Predict the output of the above C ode A. l=10
B. l=9 C. l=11 D. Compiler Error E. NoNne of the above Question 15.

Consider the following C program

```
Main()
```

```
{
```

```
Int i=0;
```

```
l++;
```

```
Fork();
```

```
Printf("d",i);
```

```
l++;
```

```
Fork();
```

```
Printf("d",i);
```

```
}
```

What is the maximum value of the l that will be printed?

A. 0

B. 7

C. 5

D. 2

E. 10

Question 16.

What will be printed by the code below?

```
#include
```

```
Using namespace std;
```

```
Template
```

```
Void swap( T *a, T *b){
```

```
Temp =*a;
```

```
*a=*b
```

```
*b=temp;
```

```
}
```

```
Int main(){
```

```
Char hello[]="hello";
```

```
Char world[]="world";
```

```
Swap((char *)&hello, (char **)&world);
```

```
Cout<<hello<<" " <<world";return 0;} a. hello world b. world hello c. helld worlo d. compiler error at the swap call e. runtime Question 17.
```

Consider a Binary Tree represented as a 1-indexed array (where the children of an element L are at indexes L and $2L+1$, element at index 1 is the root), with elements 1,2,3,4,5,6,7 in that order. If the post order traversal of the array gives $ab-cd^*+$, the label on the nodes 1,2,3,4,5,6,7 can be

A. +, -, *, a, b, c, d

B. a, -, b, +, c, *, d

C. a, b, c, d, -, *, +

D. -, a, b, +, *, c, d

E. None of the above

Question 18.

A hypercube is defined as follows:

A hypercube of dimension 0 has only a vertex. To construct a hypercube of N dimensions, take two N-1 dimensional hypercubes, and attach edges between corresponding nodes of each of these hypercubes. How many colors will you need to color the EDGES of an N dimensional hypercube such that no two edges of the same color share a common vertex?

- A. 2
- B. 2^N
- C. N
- D. N^2
- E. None of the above

Question 19.

Find the complexity function

$$F(n) = 2F(n/2) + 10n, \text{ if } n > 1$$

$$F(n) = 1, \text{ if } n = 1$$

- A. n^2
- B. $n(\log n)^2$
- C. n
- D. $n \log n$
- E. None of the above

</hello<<">

Question 20

In each step of insertion sort algorithm, a new element has to be inserted into an already sorted subarray. Instead of using sequential search to determine the location of new element which takes $O(n)$ time (Which makes the overall complexity $O(n^2)$), We can use binary search since the subarray is sorted, which will take $O(\log n)$ time. By using this technique, we can reduce the complexity of insertion sort from $O(n^2)$ to

- A. $O(n \log n)$
- B. $O(n)$
- C. $O(\log n)$
- D. $O(n^2)$
- E. $O(1)$

Question 21

Consider the following procedure:

```
f(n)
for i=1 to n
  dp
  j=n
  while j>i
    do
  j=j-1
  end while
end for
```

Assume the above procedure are only an integer $n > 0$;

What is the time complexity in n for the procedure above:

- A. $O(n \log n)$
- B. $O(n)$
- C. $O(n^2)$
- D. $O(N^3)$
- E. $O(1)$

Question 22

The worst case time complexity of finding 5th smallest number in a list of 50000 randomly chosen numbers.

- A. $O(1)$
- B. $O(n)$
- C. $O(\log n)$
- D. $O(n^2)$
- E. $O(n \log n)$

Question 23

Consider the problem of sorting (in ascending order) of an array of numbers, each number being the range(50,000 5000,000). What sorting algorithm is the best choice for the above problem. What is the best case time complexity of sorting achievable for this problem?

- A. Merge sort
- B. Insertion Sort
- C. Quick Sort
- D. Counting sort
- E. Bubble Sort

Question 24

Two matrices M1 and M2 are to be stored in an Array A and B respectively. Each Array can be stored either in row major or column major order in contiguous memory locations. The time complexity to compute $M1 * M2$ (Matrix Multiplication) will be

- A. Best if A is in row-major and B is in Column Major Order.
- B. Best if both are in row major
- C. Best if both are in column major
- D. Independent of the storage scheme.

E. None of the above

Question 25

An large array $[1..n]$ with N slots is filled only up to positions n for the n very less than N . To start with we do not know n . To locate an empty slot, we check $A[j]$ for $j=2^{2^i}$

in step i . What is the fewest number of steps in which we are guaranteed to find an empty slot?

A. $O(n)$

B. $O(\log n)$

C. $O(\log N)$

D. $O(\log \log n)$

E. $O(\log \log N)$