ZOHO INTERVIEW QUESTIONS

I Round

1. Father told his son "I was as old as you at present when you were born. If father's present age is 38, what is his son's age 5 years back?

2. In a jungle a man was at one end of the jungle. He has to give a 2 pieces of cake to his friend who was at the other end of the jungle. There were 7 bridges on the way with 7 gatekeepers. Each gatekeeper will take half of the cake he has and will give one piece back to him. How many cakes should the man carry initially?

3. Gunal is a strange liar. He lies on 6 days of the week but he tells the truth on the 7th day. Consider the following statements

Day 1: I lie on Monday and Tuesday

Day 2: Today is Thursday, Saturday or Sunday

Day 3: I lie on Wednesday and Friday

Which day does he speak the truth?

4) I want to select the fastest three horses out of 25 horses. You can test only 5 horses at a time because there are only 5 tracks. You do not have a stopwatch. How many minimum number of races will you conduct to pick them?

5) A number when divided by 3 leaves a reminder 1, when by 4 leaves a reminder 2, when by 5 leaves a reminder 3, when by 6 leaves a reminder 4. what is the smallest number that satisfies the condition?

Section II – C aptitude

1)

```
int main()
 {
printf("%s %s",("Zoho" "corp"), ("Campus" "corpp"),("Zoho" "Corporation");
}
```

2)

```
int main()
{
 int x=3,y=4,z=4;
 printf("ans=%d\n",(z>=y>=x?100:200));
 return 0;
}
```

3)
```
 int main()
 {
   struct num
   {
      int n1:2;
      int n2:3;
      int n3:4;
   } num{3,4,5};
 printf("%d%d%d\n",num.n1,num.n2,num.n3);
}
```

4)
```
  unsigned int i=650000;
  while(i++!=0)
  {
    printf("%d",i);
  }
```

5)
```
int main
    {
      sum=0;
      int I,j;
      for(i=0;i<=1000;i*=2)
      {
        for(j=1;j<I;j++)
        {
          sum++;
        }
      printf("%d",sum);
    }
```

6.
```
for(int i=0;i++;prinf("%d",i));
  printf("%d",i);
```

7.
```
int a=0,b=0;
if(a++&&b++)
printf("%d%d",a,b);
else
printf("great");
```

8.
```
enum SWITCH{off,on};
main()
{
 enum SWITCH s= on;
 printf("size of enumeration %d \n", sizeof(enum SWITCH));
 printf("size of object s is %d \n", sizeof(s));
}
```

II ROUND

1. **Given a set of elements as an array find the median of the array. Median is the value which separates the higher indexes from the lower indexes.**
   E.g.: input = [1, 2, 3] output = 2; input = [1, 2, 3, 4] output = 2.5
2. **Given a set of strings find the first occurrence of a string**
   E.g.: input = [AL, AL, GH, F, GH, PK] output = F
3. **Given an array of numbers find a subset from the array such that the average for the whole set of numbers should equal the average of the numbers in the subsets deduced from the main array.**
   E.g.: input = [10, 20, 30, 40] output = [20, 30] [10, 40]
   Input = [20, 40, 60] output = [40] [20, 60]
4. **Implement a LRU (Least Recently Used) cache of size 10.**
   - **There must be a key and value for each element in cache**
   - **There must be two functions get (key) and put (key, value)**
   - **When trying to add after 11th element the least recently accessed element should be replaced.**

III ROUND

Implement a dictionary which can store words in sequential order of occurrence. Implement an efficient data structure so that the search for elements must be fast even if there is a presence of one lakh words.

The input will be a paragraph from which the program has to find misspelled words and provide a near match to the word present in the dictionary.

Sample dictionary:

A

An

Apple

Away

Ball

Cat

Day

Doctor

Keeps

The

Sample Paragraph:

An Apple A Day Keeps The Dctor Away

Output:

Suggested word for Dctor is Doctor