

Motorola Interview.

There was a Technical Interview, followed by personal interview.
Mainly concentrating on the interesting subjects.

write a C code

1. to reverse a string using a recursive function, without swapping or using an extra memory.
2. To reverse a linked list as above.

given a macro like

```
#define MAX(A,B) {to return that is larger}
    what will MAX(i++,j),MAX(i,j++) return.
```

Difference between Macro and ordinary definition.

Difference between Class and Struct.

Testing and Maintenance. (will you work in it and what are they)

Give the outputs of a compiler and assembler and loader and linker etc

.
If a new data structure, suppose a queue is to be added like int, long

etc.,

where shall the changes be -- lex or yacc or where.

what is a Real Time OS.

Name some.

Describe VRTX in few words.

How does the scheduler know the time how it should be scheduled.

sockets, TLI, streams.

and much about project.

What is deadlock? How do you avoid it?

What is a semaphore?

What exactly happens after each system call in sockets, both at the client and at the server.

What is the difference between widget & gadget in XWindows?

Tell about strtok & strstr functions.

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Motorola 99

there are 45 question . no technical question are asked. time 45 mins.

2 reasoning question means total 11 questions. reasoning is not from GRE.

1. antonym

p.... ans. static

2. there are 1800 coins. one coin is counterfeit coin. how many minimum weight is required to find counterfeit coin.

3. there are six questions of series.

1 2 3 5 8 ? ans.

102 204 102 ans. 256

questions are very easy. you can solve easily there.

4. word1 : word2 = motorola : ans. c

5. this type of questions are asked.

1 2 4

10 ?

3 4 ...

6. instruction to add 3 ans. 4

7. floor problem ans. 11th floor

Motorola Interview.

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>>client and at the server.
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>>Tell about strtok & strstr functions.

```

```

>7.Interchanging strings and numbers           Ans C
>8. Matricide:Mother:: Homicide:?              Ans Human
>9.Some Mammels are Vertebrates
>  Some Vertebrates are.....                 Ans d
>10. Figure patteren: --|--.....etc. direction changes problem.
>11.  work problem.....etc. (not clear).
,
>C TEST'
>'

```

```

>1. main() `
>{ `
>int arr[100]; `
>int c; `
>int N; `
>for(i=-:i<N;i++) `
> arr[i]=i; `
> minvalue i = ..... `
> Maxvalue i = ..... Ans 0,100 resp `
> `
>2. Union Problem ..... Ans : a or c `
>3. for n=2 the following fn returning value is `
>int fun(int n) `
>{ `
>for(i = 1;i<=n;i++) `
>for(j=i;j<=i;j++) `
>sum=sum+j; `
>return(sum); `
>} Ans 6 `
> `
> `
>4. Calculate sum=1+1+2+1+2+3+1..... `
> Ans i<=x; j<=i `
>5. for x=2 y=3 z=1 `
>the following fn return `
>int fun(int n; int y; int z) `
>{ `
>int sum `
>for(i=x;i<=y;i++) `
>for(j=1;j<=z;z++) `
>sum=sum+z; `
>return sum `
>} `
> Ans 0(check) `
> `
>6. The values of sum from above fn
>for x=0; y=0; z=1 Ans 1
>7.how can you insert the following values in stack and numbers
10,20,30,40,50,60
>stack [][][][][][]
>numb [][][][][][]
>
>Ans
>60 50 40 30 20 10
>10 20 30 40 50 60 `
>check.
>
>8. # if ndif XYZ `
> `
>#include "XYZ.h" `

```

```

>#endif'
>what is meaning ?'
>Ans:'
>if XYZ is not defined then only include the header file XYZ.h.'
>'
>9. p:malloc(int*sizeof(int));'
>'
>ans: a'
>'
>10.a=5 b=10 c=7'
>(a>c)?a:((b>c)?b:c)      ans 10'
> 11. debugging eliminates Ans[c]'
> ans: both logical & run time errors.'
> 12. int term (int x)'
> { int sum=0;int i;'
> for(i=0;i<=5;i++)'
> sum+=x;                      /*probel is wrong but Ans is 650.*/'
> return(sum);'
> }      Ans 650'
> the above fn value for x=150'
> 13.int x;'
> scanf("%d",x);'
> -----'
> -----'
> what is error in the above program'
>'
>14.int a[] = { 1, , 9,2.....}'
>int *p;'
>p=&a[2];'
>printf("%s",p);'
>a)7      b)2   c)4407      d)none'
>'
>ans: d'
>15.a[][] = {1,2},{3,4}'
>b[] [] ={'
>void fun(A,B)'
>int i,j;'
>for(i=1;i<N;i++)'
>for(j=1;j<N;j++)'
>sum=sum+A[i][j];'
>return sum;'
>}'
>what is wrong in the above function?'
>'
>16. OTHER QUESTIONS ARE MAINLY CONCENTRATED ON ERRORS LIKE'
>(i)syntax (ii) runtime (iii) logical (iv) debugging.'
>'
>17. A binary tree with depth of '3' has max kof 20 nodes  ans: no.'
>18. breadth search and depth search in binary tree.'
> ANALYTICAL'

```

```

>
>1.20%loss;20 % gain  Ans 4% loss'
>2.Order problem      Ans : Bo,Ka,A,Tp  Ans Bo'
>3.10%5+3*2-3  ans:5'
>4.Calls:Tissus::Atom:?  Ans:Molecules'
>5.cube problem( 32 bigger+4 smaller cubes)-> R.S.Aggrawal nonverbal'
>                                     ->pg 92: 5 questions'
>6 PQRSTU->problem-> Verbal Reasoning -> .....do.....pg 430 : 5'
question.'
>7 problem -> verbal reasoning -> rs aggrawal pg 207 Quest  17 to 21.'
>
>
>                                     C TEST'
>
>1. malloc ?    2. char * p =" hwlllo world " , what is wrong?'
>3. char (*(a(N))())();?'
>4.*p++ = ?'
>5 int i=7'
>printf( "%d \n",i++ i++) o/p =? ans 56'
>6.n=2  pow((2.0,n),++n)?'
>7 #define macro for ( i,g) ?'
>8. int reg=2  is there any wrong ? write a reason'
>9. #define max 10'
>  p=&(a+b);'
>  q=*max;'
>  }    what is wrong'
>
>
>  10. strcat( string,'O');'
>  wrong? werite reason?'
>11.char *s=char * ....'
>      else (string)....? wrong? write reason?'
>
>      PSG PAPER:    ARITHMETICS'
>
>1. Venn diagram for white, clothes,flowers'
>2.Male members ABCDEF,  female members PQRSTU'
>  This problem is same as in rs aggrawal [5questions]'
>3.  not clear.'
>
>4. IMS material    A sales person problem.'
>[5 question]      conditions: M must visit before P&Q'
>                  R "      "      " MNOPQRS'
>5. A containor contains 40 lt milk, 8 lt water'
>
>ans:( 0.80)^3 * 40 = 20.41lts.'
> 6. direction problem (playing cards)          Ams south-west.

```

1. antonym

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questions are very easy .you can solve easily there.

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5 . this type are question are asked.

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e
sections.

1. aptitude 15 questions 20 min.

2. system concepts 20 questions 20 min.

3. 'c' 15 questions 20 min.

NOTE:::::

I'm sendin the questions, many of them have no answers. U do check th
e
answers for all the given questions also.

All questions are MULTIPLE CHOICES ONLY.

U do try to cover the related topics to get some understanding.
In interview They are asking C C++ Operating system concepts
and Networks.

They will ask about Ur interesting subjects, U try to have good
grip on those intresting subjects.

They asked about c c++ project work and operating systems.
Don't worry, prepare well, get it, All the best.

section 1::::;

*. GRE book test paper 3 section 5

question no. 8 to 12 (ships WXYZ starting on dec. 23rd.....)

* 5 programs are sheduled from monday to saterday, monday is not
holiday,

PQRST are the programs. Theday before P is holiday, and some other
clues are

given, we have to find the sequence (4 questions)

ANS: tuesday is the holiday

P comes on wednesday ,

U can do the remaining very easily.

* Suppose U R the presoner, There are two guards Who will tell truth o
r

one will tell truth. There is a gate for liberty and another foe hell.

Some questions are given, like

i. are U tell truth?

ii. another tell truth or not??

iii. both of U R telling truth??

iV. both of U lieing??

V. -----

they gave a. b. c. d. and asking about which sequencing is
sufficient to

find the gate for liberty??

(I can't give exact thing)

* There are WIFE and HUSBAND at one side of river. They have one child

,
They want to cross the river. The child can't be lonly. The boat boy
won't

permit morethan one to cross the river, what is the correct way to
cross the river??

* There are 7 targets, A B and C has to shoot them. All should be
shooted

consicutively.

1. The no. of chances for A and B are not less thn 2,

2. for C there is only one chance.

3. A can't shot 3 times consicutively.

4. B is permitted to shoot in even chances only.

They have given some 3or 4 questions on this

*

-

section 2:

This part is System concepts(25 Q in 20 min).We haven't remember
exactly, but it
will help alot if u spend some time to revise these concepts.

1.encryption and decrption is done in the following layer.

a) DLL b) Networklayer c)Transport d) presentation Ans:d

2.floating point has different formats on two different

machines. This modification-

cations are taken care by which layer?

a) DLL b) Network layer c) Transport layer d) Presentation Ans: d

But check whether is it DLL dealing with frame formats.

3. Time complexity of Quick sort algo

a) N^2 b) $\log(N)$ c) $N \cdot \log(N)$ d) N Ans: c

4. Time complexity of AVL tree is .

a) --- do --- Ans: b

5. Cycle stealing is used in which concept?

a) Programmed I/O b) DMA c) (see Goankar book) Ans: a

r

b

* two questions on IP addressing format.

6. How many octets are there in IP address

a) 6 b) 8 c) 10 d) 12 maybe (b) Ans: fin

d

7. What are the max number of hosts that can be served by IP

a) 254 b) 256 c) 2^{24} d) -- maybe (c) Ans: fin

d

8. Which of the following is model representation of life cycle software

a) Water fall model b) spiral c) .. (enquire with CS students)

9. Review of code is for the purpose of

a) to find syntax error b) to check for the proper design ..

10. Semaphores are used for the resolution of

a) contention b) accessing of same resources by more than one

11. In threading of processes when the race condition will happen

a) low priority process b) higher priority process ...

See O.S. by Peterson

12. Which of the following function is not performed by O.S.

a) CPU scheduling b) Memory management c) Transaction d) .. Ans: c

13. If two appl. programmes use same libraries which of the following are shared

a) lib code b) code and stack c) data d) data, code and stack

Ans: a (check for b)

14. Which is the 16 bit max signed int.

a) 66337 b) 66338 c) 257 d) 258 a, b are not exact ans: a

15. When will interrupt occur?

a) divide by zero b) DMA completed c) no more memory ans: may b

e

c

16. Which of the following has low power consumption

a) EIL b) CMOS c) Totem pole Ans: b

or the question is for fastest gate (EIL)

17. Which of the following is the wrong statement

a) Combinational circuits have memory

b) sequential circuits have memory

c) sequential ckts is a function of time ans: a

18. Virtual address is

a) more than physical address

- b) less than phy mem
 c) equal to phy mem
 d) none ans : a
19. Which of the following reduces CPU burden ans : a
 a) DMA b)
20. malloc function allocates memory at ans: d
 a) compilation time b) link c) load d) running

 -

 section 3::

1. Max value of SIGNED int

a. b. c. d.

2. One question is given, long one, to find the answer U should be familiar with the operation as follows

```
int *num={10,1,5,22,90};
main()
{
  int *p,*q;
  int i;
  p=num;
  q=num+2;
  i=*p++;
  print the value of i, and q-p, and some other operations are there.
}
how the values will change??
```

3. One pointer diff is given like this:

```
int *(*p[10])(char *, char*)
```

asked to find the meaning.

4. char *a[4]={"jaya","mahe","chandra","buchi"};
 what is the value of sizeof(a)/sizeof(char *)
 a. 4 b. bytes for char c-- d.--

(we don't know the answer)

5. void fn(int *a, int *b)

```
{
  int *t;
  t=a;
  a=b;
  b=t;
}
main()
{
  int a=2;
  int b=3;
  fn(&a,&b);
```

```
print the values os a and b;
}
```

what is the output--- out put won't swap, the same values remain.

- a. error at runtime
- b. compilation error
- c. 2 3
- d. 3 2

6.

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

```
main()
```

```
{
printf(scanf,scanf);
}
```

what is the output.

ANS : %s is string is string

```
7. i=2+3,4>3,1;
printf("%d",i);
```

ans is 5 only.

```
8. char *p="abc";
char *q="abc123";
```

```
while(*p==*q)
{
print("%c %c",*p,*q);
}
```

- a. aabbcc
- b. aabbcc123
- c. abcabc123
- d. infinite loop (this may be correct)

```
9. printf("%u",-1)
```

what is the value?

a. -1 b. 1 c. 65336 d. --

(maxint value-1 I think, check for the answer)

```
10. #define void int
```

```
int i=300;
```

```
void main(void)
```

```
{
int i=200;
{
int i=100;
print the value of i;
}
```

```

    print the value of i
}
what is the output?

```

may be 100 200

11.

```

int x=2;
x=x<<2;
printf("%d ",x);

```

ANS=8;

12.

```

int a[]={0,0X4,4,9};    /*some values are given*/
int i=2;
printf("%d %d",a[i],i[a]);

```

what is the value??? (may be error)

13.

some other program is given , I can't remember it
U can get it afterwards,

the answer is 3 3, so U can check this in the exam. itself.

7.floor problem ans. 11th floor

8.
