Samsung : Test Paper on 25 Dec 2011

1) If integer needs two bytes of storage, then maximum value of an unsigned integer is
a. 2^16-1
b. 2^15-1
c. 2^16
d. 2^15

2) If integer needs two bytes of storage, then maximum value of a signed integer is
a. 2^16-1
b. 2^15-1
c. 2^16
d. 2^15

3) What is the output of
printf (“%d”, printf(“tim”));
a. results in a syntax error
b. outputs tim3
c. outputs garbage
d. prints tim and terminates abruptly

4) Length of string “correct” is
a.7
b.8
c.6
d. implementation dependant

5)Consider the following program fragment
char c= ‘a’;
while(c++ <= ‘z’)
putchar(xxx);
If the required output is abcd…wxyz, then xxx should be
a. c
b. c++
c. c-1

d. --c

6) Consider the function
Find(int x, int y)
{
return ((x<y)?0:x-y)
}
The call find find(a, b) can be used to find
a. maximum of a, b
b. positive difference of a, b
c. sum of a, b
d. minimum of a, b

7) If abc is the input, then the following program fragment
char x, y, z;
printf("%d",scanf("%c%c%c", &x, &y, &z));
results in
a. a syntax error
b. a fatal error
c. segmentation violation
d. printing of 3

8) Consider the statements
putchar(getchar());
putchar(getchar());
If ab is the input, the output will be
a. an error message
b. this can't be input
c. ab
d. a b

9) The operators , || < = if arranged in the ascending order of
a. , || < =
b. = < || ,
c. = || < ,
d. < || = ,

10) The following program fragment
Unsigned i=-1;
int j = -4

printf("%u", i+j);
prints
a. garbage
b. -3
c. an integer that changes from machine to machine
d. none of the above

11) The following program fragment
for(i=3; i<15;i+=3){
printf ("%d",i);
results in
a. a syntax error
b. an execution error
c. printing of 12
d. printing of 15

12)The following description of the program, please pick the wrong one?
int main(void) {
int i= 100;
int*pi=&i;
int**dpi = π
}
a. dpi to store a pointer with the address for pi is a double pointer
b. (*pi==i) is true.
c. (*pi== **dpi)is true.
d. (*dpi == 100) is true

13)Below, please find the results for the program do?
int counter = 0, i;
for(i=0;;i++) (
if (i < 100) continue;

counter ++;
if (counter == 100) break;
)
printf(%d%d",i, counter);
a.199 100
b. 200 100
c. 199 99
d. 200 0

14) See below for a description of the defined array, please choose the wrong thing ?
int a [] = {10,20,30,40};
a. successive one-dimensional array of elements in the array a[1], a[2] is located in the contiguous memory space.
b. a[1] and a* (a+1) is the same.
c. During the initialization of an array; array size must be specified otherwise the initial value at compile error occurs
d. & a[1] which has a +1 value, such as the address

15) Which is true about goto statement(don't remember the options)
Ans:- It is used for coming out of the nested loop

16)what is conditional compilation(don't remember the options)
Ans:-compilation is based on condition

17)minimum no. of temporary variables required for swapping two numbers
a) 3
b) 2
c) 1
d) 0

18) The correct relation between / and %(don't remember the options and answer but I ll tell u logic)
Logic:-there will be expression containing a,b,/,%.take random values substitute and check the result(LHS=RHS)

19) what is the output of the below code
Main ()
{
Printf("%d",printf("India"));
}

SAMSUNG TEST PATTERN

Some Technical Questions

1.Ipv6 --- 16 bytes.

2.multi cast addressing range...

3.subnet was given how many computer can be connected ??? 255.255.255.242 ??

4.RS232C binary 0 ---- +4v (+ve)..

5.socket programming --- select (not related to socket system calls)

6.HDLc --- a) GO back n b) Go back n-1 c)select repeat n d)none of the above..

7.piggy backing --- acknowledgements..

8.ATM -- basic question.

9.Max no. of outstanding acknowledgements...

10.int a;
static int a;
int fun() { return a;}
static int fun() { return a; }

11.some program
main()
{
extern int i;
print i;
}
ans) linker error..

12.Advantage of digital over analog signal ??

13.study digital modulation techniques..

```
int j=3;
int *p=&j;
printf("%d %d", *p++,++*p);
```

it will not increment j value as ++ is done first on p before *, so address gets incremented and garbage value will be there

14.Which is non-deterministic structure
a)ethernet b)802.4 c) 802.5 d)none
Ans) ethernet check..

15.3 bits on size of structures...

16.Linux --- memory model
a) small b)hughe c) flat d)none.

17.Which one does not involve direct recursion..
a) backtracking
b) divide and conquer
c) dynamic programming
d) none of the above..

18. sort time complexity based on
a) No of comparisions
b) no of swaps.
c) no of copies.
d) all of the above (check)...a
Ans

)(e) none of these

There were at least 15 ques from networking
19) out of the following which supports error checking and error correction in data link layer
a)802.2 LLC
b)802.3 CSMA/CD
c)802.4 Token Bus
d)802.5 Token Ring

Ans) a

20)How many bits of IP address are required to make 8 subnets
a)1
b) 2
C) 3
d)4
Ans) 4 (as 000 and 111 0f 3 bits are not valid subnets so take 4 bits)

21)Which statement were incorrect regarding multicast and broadcast options do not remember
Ans) Regarding whether NIC checks the multicast address or cpu ?

22) network equipment's make hierarchy in which topology
a) bus
b)star
c) ring
d) tree
Ans) Tree (checkout)

23)which of the following f is not CDMA technology
a)DS-FH (Discrete spectrum-freq hoping)
b)DS_FT
C)DS-
d)TDMA-FS.
Ans) d

24) Determine network ID of classful IP address 192.42.14.1
a)192
b)192.42
c)192.42.14
d)192.42.14.1
Ans) c (class c)

25) what is the advantage of ADSL(assymetric digital subscriber line) over modem
Ans) it has normal uplink band width but higher down link
bandwidth (something like that)

Ques8) Why DSL is faster than normal modem Ans) d (all of the above)

Ques9)Min sampling freq for 20-20kHz analog signal is
a) 20khz
b)40khz
c)44.1khz
d) 20hz
Ans) b
25)Adventages of digital over analog signal:
a)noise immunity
b)data security and integrity
c)efficient transmission
d)all of the above Ans) d

26) MPEG stands for
Ans) Moving Picture Experts Group

27) Question on Umbrella cell
Ans) it covers microcell only.

28) why channel coding is done
a)to secure data
b) to maintain integrity of data
c) effective transmissionof data
d) all of above
Ans) c

29)Question on error reselient and sustain to burst which is a) solomon code b) cyclic c) gray d) huffman Ans) a(chek out)
Some C questions

Ques30
```
main()
{
i=2;
printf(I=%d i=%d",++i,++i)
}
```
Ans) vary compiler to compiler

Ques31
```
main()
{ unsigned char i=0x80;
printf("i=%d",i<<1);
```

} Ans)256

Ques32)
main(
{
B=0xFFFF;
~B ;
printf(%d",B);
}
Ans) 0xFFFF

Ques33)
Func(int a, intb)
{
int a;
a=10;
return a;
}
will there be any error and some other options are there.
Ans) No error.

Ques34) string is given Myprog one two three Where Myprog is an exe file. What will the output of the following program ?
main(argc, argv)
{
printf("%c"++**argv);
some thing and the progname is myprog on command line.
options)
a) m
b) n
c) none
d) myprogram

Ques35) In 1.5 fixed format how is -1 represented
a)0xFFFF b)0xF000 c)0x8000 d)0x0001 (options may not be correctbut ques is correct)
Ans) a

Ques21)
#define Sqr(b) b*b;
main( )

```
{
int i=3;
printf("%d",SQR(i+2);
}
```
Ans) 11

Q 36) Main(){
Char c=,a,;
Printf("%d %d", sizeof(c),sizeof(,a,));
}
options:- a) 1 1 b) 2 2 c) 2 1 d) 1 4
Ans: d

Q 37) question related to the ICMP
Ans) d (chek out)

Q 38) question ralted to ARP (which machine will respond for the request of ARP)?

39)The following program fragment
1for(i=3; i<15;i+=3);
printf(“%d”,i);

Results in
a. a syntax error
b. an execution error
c. printing of 12
d. printing of 15

```
40 int j=3;
int *p=&j;
printf("%d %d", *p++,++*p);

41#define Sqr(b) b*b;
main( )
{
int i=3;
printf("%d",SQR(i+2);
}
```

42 Main (){
Char c=,a,;
Printf("%d %d", sizeof(c),sizeof(,a,));
}

43 Main()
{
Int i=4;
Switch()
{
Printf(“Hello”);
Case 1:

Case 2:

}
}what is output??

44 Switch(i)
{
Case 10
----------;
Case 5*2:
----------;
}what is output/error?

45.union xyz{
Char c[2];
Int I;
};
Union xyz a;
a.i=512;
a.ch[0]=3;
printf(“%d“,a.i);

46 Main(){
Printf(“%d”,main());
} what is output?(stack overflow)

47Main(){
int i=2;
-i;
Printf(“-i=%d”,i);
}

48.main()
{
Char str[]=”hello\0samsung\0india”;
Printf(“%d %d %d ”,strlen(str),strlen(str+5),strlen(str+13));
}

49.,12.there are 2 questions are based on pointer to string similar to test ur c skill type
13,14 . 2 questions are from c++
In which one is based on empty class
And in another question a structure(contains self-referential structure pointer) was declared inside a class and a object of that type of class was declared. something like
Class ABC{
Struct node{
Int a;
Struct node *ptr;};
}
ABC t;
What is sizeof(t) and sizeof(ABC)??

50. if(a=0)
Printf(“a is zero”);
Else
Printf(“a is not zero”);
51.No of node in full binary tree
a).13 b).15 c).16 d).14

52. a question based on heap tree property

53. a recursive function stores in-------

54. a question based on binary tree

55. Question based on file system

56. Question based on interrupt handing

57.Question based on bootstrap program

58 what is the advantage of ADSL(assymetric digital subscriber line) over modem Ans) it has normal uplink band width but higher down link bandwidth (something like that)

58 Min sampling freq for 20-20kHz analog signal is a) 20khz b)40khz c)44.1khz d) 20hz Ans) b

59. Adventages of digital over analog signal: a)noise immunity b)data security and integrety c)efficient transmission d)all of the above Ans) d

60. Where Myprog is an exe file. What will the output of the following program ? main(argc, argv) { printf("%c"++**argv); some thing and the progname is myprog on command line. a) m b) n c) none d) myprogram

61. In 1.5 fixed format how is -1 represented a)0xFFFF b)0xF000 c)0x8000 d)0x0001 (options may not be correct but ques is correct) Ans) a

62. main() { i=2; printf(I=%d i=%d",++i,++i) } Ans) vary compiler to compiler

63. main() { unsigned char i=0x80; printf("i=%d",i<<1); }Ans)256 8. main({ B=0xFFFF; ~B ; printf(%d",B); } Ans) 0xFFFF

64 Func(int a, intb) { int a; a=10; return a; } will there be any error and some other options are there. Ans) No error. 10.

65 Determine network ID of classful IP address 192.42.14.1 a)192 b)192.42 c)192.42.14 d)192.42.14.1 Ans) c (class c)

Technical Interview:-

1 Difference between String, String builder and StringBuffer.

2 What are design patterns.

3 Write code for singleton design patterns.

4 Explain MVC and Front controller Design Pattern.

5 Session management techniques in java.

6 RMI (Remote Method Invocation)

7 Then they switched to DATABASE

8 Explain normalization and denormalization.

9 Write a sample code for cursors, triggers.

10 Then they moved to Operating System. This was a simple one to handle.

11 They gave about 8 processes with there times and I was asked to draw gantt chart.

12 Explain real time, time sharing, time slicing, multi processing, multi programming OS.

13 Explain unix commands – crontab, ps, ls, sed, grep, awk.

14 Write a shell script code for printing the series
1
22
333
4444
55555
sample of the technical questions asked

15If integer needs two bytes of storage, then maximum value of an unsigned integer is

a. 2^16-1
b. 2^15-1
c. 2^16
d. 2^15

16 If integer needs two bytes of storage, then maximum value of a signed integer is
a. 2^16-1
b. 2^15-1
c. 2^16
d. 2^15

17 What is the output of
printf (“%d”, printf(“tim”));
a. results in a syntax error
b. outputs tim3
c. outputs garbage
d. prints tim and terminates abruptly

18 The following program fragment
unsigned i=-1;
int j = -4
printf(“%u”, i+j);

prints
a. garbage
b. -3
c. an integer that changes from machine to machine
d. none of the above

19 The following program fragment
for(i=3; i<15;i+=3);
printf(“%d”,i);
results in
a. a syntax error
b. an execution error
c. printing of 12

d. printing of 15

20 The following description of the program, please pick the wrong one?
int main(void) {
int i= 100;
int*pi=&i;
int**dpi = π
}

a. dpi to store a pointer with the address for pi is a double pointer
b. (*pi==i) is true.
c. (*pi== **dpi)is true.
d. (*dpi == 100) is true

21 Below, please find the results for the program do?

```
int counter = 0, i;
for(i=0;;i++) (
if (i < 100) continue;
counter ++;
if (counter == 100) break;
)
printf(%d%d”,i, counter);
```

a.199 100
b. 200 100
c. 199 99
d. 200 0

22 See below for a description of the defined array, please choose the wrong thing ?

```
int a [] = {10,20,30,40};
```

a. successive one-dimensional array of elements in the array a[1], a[2] is located in the contiguous memory space.
b. a[1] and a* (a+1) is the same.
c. During the initialization of an array; array size must be specified
otherwise the initial value at compile error occurs
d. & a[1] which has a +1 value, such as the address

23 .Define sqrt(x) x*x
Sqrt(3-5);
Answer: -17;

24 Define true 1
define false -1
define null 0

```
if(null)
printf(“……”);
else if(false)
printf(“true”);
```

Ans: True;

25 .int i=10;
Switch(i)
{
Printf(“samsung”);

Case 10 rintf(“some string”);
Break;

Case 5*2 rintf(“some string”);
Break;
}
Ans: Error Due to Conflicting Case;

26 .int i=5,*j;
Void *k;
K=j=&I;
Printf(“%d”,k+1);
Ans: Compilation error (but its running on gnu) bec arithmetic operations not allowed in void pointer;

5.char *c=’a’;
Printf(“%d %d %d”,size(c),size(‘a'),size(*c);
Ans: 4,1, 1;

6.class abc
{
static int i;
Int a;
};
abc ob;
cout<<sizeof(ob)
ANS-8,

7.class abc
{
};
abc ob;
cout<<sizeof(ob);
Ans-1 (size of object of empty class is 1)

8.int i=512;
Char *c=(char *)&i;
C[0]=1;
Printf(%d",i);
Ans: 513;

9.int *b={1,2,3,4,5,6,9,8};
Print("%d",(b+1)[5]);
Ans -Error

10.static int I;
Main()
{
If(i==5)
Printf("Samsung");
i++;
return(i=main());
}
Ans: Stack Overflow

11 main(){.printf("%s",printf("Samsung")+fun());}
fun()
{
return "electronic";//not remember exactly
}
Ans: Samsung IC
Ans: 9

12-char *a="hello\0world\0!!";
Printf("%d",strlen(a));
a=a+6;
Printf("%d",strlen(a));
a=a+7;
Printf("%d",strlen(a));
Ans : 5 5 1

13.struct abc
{
};
Struct abc arr[10];
Struct abc *p=arr;
Which will be increment the pointer to point the next array element?

Ans:- p=p+sizeof(abc);

14.int main()
{
char a='\0';

printf("%d",a);
return 0;
}
ans-0

14-When CPU Service Interrupt
Ans : (a) after executing the current instruction

15-On Switch on the Computer Which Loader Come in Action First.
Ans: Boot Strap Loader

16-which of the following are not related to file system
Ans-file are in main memory

17-How Many No. of Node Will Make a Complete Binary Tree.
Ans: 15;

18-.Property of Heap?

Ans: Every Node is Greater Than its Child;

19-.In Case of Recursion Wis Overhead.
Ans : Stack

20-hich languages necessarily need heap allocation in the runtime environment?
(A) Those that support recursion
(B) Those that use dynamic scoping
ANs(C) Those that allow dynamic data structures
(D) Those that use global variables

21-
main()
{
int i=- 1;

```
-i;
printf("%d",i);
return 0;
}
```
ans: -1

```
22-main()
{
char *p;
printf("%d %d ",sizeof(*p),sizeof(p));
}
```
Answer:
1 4

23-how may times printf will executed
```
main()
{
for(int i=-1;i<=10;i++)
{
if( i==5)
continue;
else
break;
printf("samsung");
}
```
ans-0 times
Some question are from gate papers only C and data structure part..

</sizeof(ob);
</sizeof(ob)

1. what is the advantage of ADSL(assymetric digital subscriber line) over modem
Ans) it has normal uplink band width but higher down link bandwidth (something like that)

2. Min sampling freq for 20-20kHz analog signal is
a) 20khz b)40khz c)44.1khz d) 20hz Ans) b

3. Adventages of digital over analog signal:
a)noise immunity b)data security and integrety c)efficient transmission d)all of the above
Ans) d

4. Where Myprog is an exe file. What will the output of the following program ?
main(argc, argv)
{
printf("%c"++**argv);
some thing and the progname is myprog on command line.
a) m b) n c) none d) myprogram

5. In 1.5 fixed format how is -1 represented
a)0xFFFF b)0xF000 c)0x8000 d)0x0001 (options may not be correct but ques is correct)
Ans) a

6.
main()
{
i=2;
printf(I=%d i=%d",++i,++i)
}
Ans) vary compiler to compiler

7. main()
{ unsigned char i=0x80;
printf("i=%d",i<<1);
}
Ans)256

8.main(
{
B=0xFFFF;
~B ;
printf(%d",B);
}
Ans) 0xFFFF

9. Func(int a, intb)
{
int a;
a=10;
return a;
} will there be any error and some other options are there.
Ans) No error.

10. Determine network ID of classful IP address 192.42.14.1
a)192 b)192.42 c)192.42.14 d)192.42.14.1
Ans) c (class c)

11. If m people take d days to complete, then m+r people take how many days
Ans) m*d/m+r

12-13) Three questions were on Analgies one was:

12. Square:___ :: Quadreplet:couplet
options were a)parallelogram b)triangle c)___ d) _____
Ans) do not Remember

13. Gazzle:swift :: Earth options : a) life b) zoology

14. If DISTANCE is written as IDTUBECN and DOCUMENT is written as ODDVNTNE then THURSDAY will be written as ans) a (HTVSTYAD)

15. A is 10 km from B and C is 17 km from B. then which option is true.....
a)A is in between B and C.
b)B is in between A and C
c)C is in between A and B
d)a and b Ans) d

16. If length of rectangle of increases by 20% and breadth decreases by 20%. Then the area
a) decreases by 4% b)---- c) same d) none
Ans) a

17. If it costs x dollors for making certain item if quantity is 1000 and if quantity increase then the item is made using y dollars. If z number of items are made which are greater than 1000 then what is the total cost.
Ans 1000(x-y) +yz

18. A girl is at 11th position from both th ends of a straight row. Then total no. girls in a row are
Ans) 21

19. series is given such as 2,7,6,-,12,-,20,49,---- ? Ans) 71(sure) break into 2 series

20. If the distance between two trains is 110KMs and two trains travel opposite in direction . If one starts at 7AM and other at 8AM and their velocities are 20 and 25 KMPH then they meet at.
Ans 10AM

1. A person is to go up a tree 60ft high. In every second, he climbs 5ft but slips 4ft. After how many seconds, will he be able to touch the top of the tree?
(1) 60
(2) 59
(3) 56
(4) 58

2. enum day { saturday,
sunday=3,
monday,
tuesday
};
value of saturday,tuesday.

3. enum day {
saturday,
sunday=-1,
monday,
tuesday
};
int x=monday;
value of x?

4. First general purpose microprocessor
a) 2002 b)4004 c)8080 d)8085

5. What is 8253?

6. which of the followinf is not CDMA technology
a)DS-FH (Discrete spectrum-freq hoping) b)DS_FT C)DS- d)TDMA-FS.
Ans) d

7. A semaphore with negative count n(s=n) has how many processes in the Q?
(a)0
(b)n
(c)n+1
(d)n-1

8. If in a PCM system the no of bits used is increased from n to n+1,the signal-to-noise ratio improves by
(a)3dB

(b)6dB
(c)20ndB
(d)24ndB

9. A is 10 km from B and C is 17 km from B. then which option is true.....
a)A is in between B and C.
b)B is in between A and C
c)C is in between A and B
d)a and b
Ans) d

10. 802.2 LLC b)802.3 CSMA/CD c)802.4 Token Bus d)802.5 Token Ring
Ans) a

11. #define Sqr(b) b*b;
main( )
{
int i=3;
printf("%d",SQR(i+2);
}
Ans) 11

12.
Main(){
Char c='a';
Printf("%d %d", sizeof(c),sizeof('a'));
}
options:- a) 1 1 b) 2 2 c) 2 1 d) 1 4
Ans: d

13. How many bits of IP address are required to make 8 subnets
a)1 b) 2 C) 3 d)4
Ans) 4 (as 000 and 111 0f 3 bits are not valid subnets so take 4 bits)

14. Which statement were incorrect regarding multicast and broadcast options do not remember

15. network equipment's make hierarchy in which topology
a) bus b)star c) ring d) tree
Ans) Tree

16. In a row of 5 girls conditions such as Radha and Asha never sit together and other conditions
Ans Radha

17. Problem on average ages given age of captain 25 and wicket keeper's Age 3 years more than captain's age. now the average of the remaining team is one less than the avg of whole team. what is the avg age of each.
Ans) 22

18. Asoka is as much young as Vimal and as much old as Arun. GIven sum of Vimal and Arun ages to be 40. then Ashoka age is ---
Ans) 20.

19. F is brother of A , C is daughter of A, G is brother of C, who is uncle of G and some conditions
Ans) F

20. In an innings the score done by A,B,C is 128runs A and B scored 90, C & A scored 68 is some number What is the score done by C