STMicroelectronics Technical Placement Paper

1. Which conversion is not possible

a. float to int
b. int to float
c. char to float
d. all are possible
Ans: d

2. Threads have which thing in common

a. register set

b. data section

c. thread id

d. ...

Ans : b

3. One question like
main()

{ int x=5, y; y= x*x++ * ++x ; // print x and y }

4. A cpu has four group of instruction set A, B, C, D

CPI of A = 1
CPI of B=3
Cpi of c =2
cpi of d= 4
the cpu access 20% of A, 30% of b, 30% of C and 20 % of D
what will be the average CPI.
Ans: 1*20/100 + 3* 30/100 + 2* 30/100 + 4* 20/100

5 . A question on hit ratio n effective memory access time.

6. main()

{ int a=10,b=5 while (--b>=0 && ++a)

{ --b; ++a; }

print (a);

print (b);

Ans: a=16, b=-2

7. main()
{ char i; for (i=0; i<=255; i++)
{ printf("%c", i); }
Ans: never ending loop

8. One question on controls systems to find the transfer function poles n zeroes were given in a graph

Ans: s(s-2)/(s-3)(s-4)

9. one question on sampling theorem, if sampling frequency is fs then the signal having same characteristics will be of frequency.

10. one on the signal to noise ratio: - if the amplitude of the signal is reduced to half & N bits samples r used with M quantization level, then the SNR will be reduced by a factor of

Ans: 6 db

11. Question on calculating the bit rate to be transmitted across the given capacity channel

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12. calculating the checksum for the bits to be transmitted given the frame-11000101 and generator is1100.

13. calculating the no of bits required for the error detection & the error correction for the given codeword set.

codeword a:

0000

0001

0011

1111

codeword b:

101111

110101

14. options were given to choose as which was an example of multitasking.

a: multiple remote users accessing a server

b: user working on spreadsheet, downloading some matter from internet

c: multiple programs resident in memory

15. CA in CSMA/ CA stands for

a. collision approval

b. collision avoidance

c. critical access

16. in a triangle, without changing the angle, if we double the sides, then new area will be

Ans. four times

17. there is a pipe having diameter 6mm, then how many pipes having 1mm diameter will be needed to provide same amount of water.

Ans . 36

18. in which of the following schemes after page replacement the entered page will enter in the same memory location as of the replaced one

a. direct mapping (Ans)

b. n-set associative

c. associative

d. none of them

19. belady anamoly is related to.

Ans. page replacement algorithm

20.which one uses cache mechanism

Ans TLB

21.what will happen in following code..

signal(mutex)

critical section

wait(mutex)

ans. violation of mutual exclusion

22.an RLC ckt was given, functioning of ckt to be determined.

a: will act like FM

b: PM

c: AM

d: none of the above

23. int i=0; switch(i)

{ case 1: printf("hi"); case 0: printf("zero"); case 2: printf("world"); }

Ans: zeroworld

24.which one is the declaration of static string

a: static string

b: 'static string'

c: "static string"

d:char sting[30]

25.A question on file handling in c

a: file cant be opened

b: msg.txt is copied to msg

c: only first string be copied

26. which of the function will store a 100 char string in X

a: fread(x,100,....)

b. fread(100,x,.......)

c. gets(x)

d. read(x)