STMicroelectronics Sample Question 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 que 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

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(this que was repeated in section 2 & 3)

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

C language programming questions

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 and zeroes were given in a graph.

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

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9. One question on sampling theorems, if sampling frequency is fs then the signal having same characteristics will be of frequency.. (in terns of fs)

10. One on the signal to noise ratio

- if the amplitude of the signal is reduced to half & N bits samples are used with M quantization level, then the SNR will be reduced by a factor of

Ans: 6 db

11. Calculating the bit rate to be transmitted across the given capacity channel

12. Calculating the checksum for the bits to be transmitted given the frame- 11000101 and generator is 1100.

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. Which is 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

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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

answer: four times

17. There is a pipe having diameter 6mm, then how many pipes having 1mm diameter wiill be needed to provide the 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 algorithms

20. Which one uses cache mechanism?

ans TLB

21. What will happen in the following code

signal (mutex)

critical section

wait (mutex)

ans. violation of mutual exclusion

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

a: will act like FM

b: PM

c: AM

d: none of the above

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23. C language program

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 programming language

a: file cant be opened

b: msg.txt is copied to msg

c: only first string be copied

d:

26. Which of the fuction will store a 100 char string in X

a: fread(x,100,?.)

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

c. gets(x)

d. read(x)