

Flextronics Technical Paper 2

1. What is max. no. of hops in hypercube n/w with $n (=2^p)$ to go from one node to another ?
 - a. p
 - b. $\log p$
 - c. n^2
2. What is Kerberos ? ans. Authentication Protocol.
3. In completely connected multiprocessor system with n processors , links will be of the order of
 - a. $O(n^2)$
 - b. $O(2^n)$
 - c. $O(n/2)$
4. When quick sort gives worst performance ? ans. When elements are in order
5. o/p of each sorting step of 8 elements was given and had to recognise which sorting algo.?
Ans. Bubble sort (Not Sure , Check it out)
6. In worst case ,which sort is best out of following sorts?
 - a. heap
 - b. selection
 - c. quick (ans.)
 - d. insertion
7. hree very simple gate circuits each having inputs A,B,C,D were given and had to tell ,which two give same result ? (DeMorgan's Law was used in solving) Ans was (a) &(c) (o/p of a & c was coming to be $AB + CD$)
8. K-map given, had to tell simplified function Ans was perhaps $AB+AD +AC+BCD$
K-Map was CD`
AB 0 0 0 0
0 0 1 0
1 1 1 1
0 1 1 1
9. What is Function Point ? Ans. S/W estimation technique
10. p points to an integer. We don't want p to change value. In C, what declarations will we use?
 - a. `const int *p`
 - b. `int *p`
 - c. `int const *p`
 - e. `int* const p` (perhaps ans.)
11. Diff between 2NF & 3NF ? Ans. D (last option)

12. Which does not use client server model ?

- a. Email
- b. Web access
- c. C. Telephone call
- d. N/w file system

13. In a pipeline having 3 stages, each having reliability of 0.9, what is overall reliability of pipeline?

- a. 0.9
- b. 0.729
- c. 0.81

14. 2 level cache is there first level cache's access time is 100ns, second level cache's access time is 33ns & memory access time is 1000 ns. What is total memory access time ? ans. 140 ns

15. In public key cryptography, A will send message to B ans. Using B's public key

16. What does projection of a relation give? Ans. gives vertical partition of relation corresponding to specified columns.

17. For disk or direct access storage, which is best ?

- a. AVL
- b. B-tree
- c. Red tape .

18. There is a tree with inorder threading Node B is inserted as left child of node A. Node A already has right child. Where will the null ptr of B point ? ans. Parent of A (perhaps)

19. There is a diskless workstation. Which will be the first protocol it will use ?

- a. FTP
- b. ARP
- c. HTTP
- d. RARP

20. Compiler keeps which of following ? ans. Symbol table

21. 'ping' command uses which protocol ? ans. ICMP

22. Merge sort uses which technique? Ans. Divide and Conquer

23. Program counter is incremented in

- a. fetch (ans)
- b. decode
- c. execute

24. what does the following program do ?

```
f(int n)
{
```

```

int c;
while(n)
{
n&=n-1;
c++;
}
print c;
}

```

ans. Program prints the no. of set bits in no.

25.-What is this called (char *) (*((*A[X] ())) ()

ans. Array of X pointers to a function returning pointer to functions that are returning pointer to char (not sure)

26.For synchronisation in distributed computing, what should not be there ?

- all machines are synchronised by a global clock
- all systems should have their own clock (perhaps ans)

27.Java applet of a moving /waving file is running on one machine then it means

- Java's executable code is downloaded and running on the m/c
- A virtual X server is running on that m/c while the actual program is running on the web server.

28.What is in RSA algo. ?

- First the session key is encrypted & then whole message is encrypted using RSA Algo.
- Message is encrypted using RSA algo.
- First Rsa algo is used &then encrypted with the session key.

29.-What is dirty read?

- Transaction reexecutes and gives diff. Results from the original execution
- Read is done when the transaction is not yet committed

30.-What is coupling ?

- It tells the strength of interconnection between two program units.
- It tells the strength of interconnection between twtlength of interconnection between two program units.

31.Any n/w on the computer can have only

- one domain &one IP
- more than one domain & more than one Ip
- one domain and more than one IP
- more than one domain & one IP

32.Which one does not have file descriptor ?

- process
- keyboard
- pipe
- socket

33. What does CONNECT BY mean?
- connect to a different database for retrieval
 - arrange in tree ordered structure
34. In two phase commit protocol, why log is used during transmission & reception?
- To retrieve the status in case of crash
35. In which algo. Waiting time is minimum?
- Ans, SJF
36. How many address bits are there in IPv6?
- ans. 128 bits
37. During run time heap is managed by
- a user process in kernel mode
 - A system process manages heap for all the processes
 - A system process for each process
 - A user process in user mode
38. In which of following search is efficient?
- height balanced tree
 - Weight balanced tree
 - Binary tree
39. A ques. on resource relocation, sharing (I don't remember more than this regarding this ques.)
40. some ques. options were sth like
- transparency control
 - Migration control
 - Concurrency control
41. X: In DFD, input is converted into output by passing through various functional units Y: DFD cannot be used in object oriented design
- both X & y are correct
 - both X & Y are incorrect
 - X correct, Y incorrect
 - X incorrect, Y correct
42. Where regression testing is used?
- Dynamic analysers
 - Loaders
43. For Java interfaces, what is true?
- Functions declarations are not given
 - Variables are not declared
 - Instance variables are not used
44. In a linked list, we can delete a node in order of

- a. 1
- b. n
- c. n^2

45. If there are N people and we have to do symmetric & asymmetric cryptography, how many keys would

be used in these cases respectively?

- a. N & N^2 (probably ans)
- b. N^2 & N
- c. N & N
- d. N^2 & N^2

46. The protected element of a class can't be accessed by

- a. member functions of the same class
- b. member functions of the derived class
- c. member functions of any other class in the same program (Ans.)

47. NFS uses same file structure as unix

48. To solve an expression which of following trees will you use ?

- a. postfix
- b. infix

Technical

1. void x(char* a)

```
{
(a[0])?x(a+1):1;
printf("%c",*(a+0));
return 1;
.....;
}
```

Input string 'a' is assigned as AaBbCc , what is the output?

Ans.-cCbBaA

2. A question on digital gates ANS is OR gate.

3. What is the binary representation of 41.6785

4. If the precondition for a subroutine does not hold then

- 1. postcondition does not hold
- 2. postcondition may or may not hold
- 3. ?
- 4. ?

5. In java

- 1. java strings are mutable. And some other options on java strings

6. Void f(char *p)

```
{
    p = (char*)malloc(6);
    strcpy(p,"hello");
}
void main( )
{
    char *p = "BYE";
    f(p);
    printf("%s",p);
}
ANS BYE
```

7. A question on write through and write back algo.

8. What is concerned with transport layer. Ans PORT.

9. A server can work with ip and ipx protocol.how the server will determine to which protocol the incoming packet corresponds .

10.For which purpose dhcp is used ANS ip address

11. global variable defined as static will serve the purpose of ---

12. Question on NFS ANS It uses the same semantics as unix for file system

13.Program counter is incremented typically in which uses ANS fetch

14.NO of NULL pointers in a tree with n leaf nodes ANS N+1

15.thread take less time than process context Why? Ans. Address space is same.

16.Which algo is best for sorting 10 elements? Ans. 1> binary tree 2> selection 3> bubble 4> none

17. question on ICV(networking)

- a) When A sends an ICV and message, B computes ICV , checks It with given ICV ,and decodes Message
- b) Similar other

18.8 When server A sends a time request to server B, (time synchronization), and response becomes past, What does A do?

- a) resets its own clock
- b) resends time request again

19.9 in public key encryption what does A do such that It is not visible to others?

- a) A uses public key part of A
- b) A uses private key part of A
- c) A uses public key part of B

d) A uses private key part of B

20. function dependency can be described as:

21. on find cyclometric complexity of the given program 1> 7 2>5 3> 4 4> 0

22. Codd's rule related to database

23. path testing comes under

A) white box

B) black box

24. when an ip address is not in the computer address resolution file what does it do with that packet

a) Ignores It

c) sends It to default gateway

d) sends It to ethernet server

25. Execution divided in different stages then this is called ANS. Pipelining

26. In C the macros are ANS. converted in to inline code during preprocessing

27. X: verification means doing the right things

Y: validation means doing things right

a. both true

b. both false

c. one true one correct

28. void insert (key, r) Keytype key, data

```
{  
  if (n>=max)  
    ERROR  
  Else  
    R[n++].key=k;
```

Which is best? 1. sequential search

29. which is best for associative list searching?

1) single linked list

2) doubly linked list

3) hash table

30. A question based on SQL ?

31. which is not necessary condition for deadlock?

1. mutual exclusion

2. no preemption

3. is ANS.

4. Circular wait

