

## Hughes Technical Paper 4

1. a processor has two level cache. Their access time (level1 and level2) is 100ns and 300ns respect. Memory access time is 1000ns\$ ans is 140 (b)
2. diskless server uses
  - a rarp
  - b arp
  - c ftp
  - d.telnetans rarp
3. which one of them is not a client server e-mail
  - telephone
  - webserver
  - and one moreans is e-mail or telephone.
4. Which one is used to represent operations
  - infix
  - postfix
  - binarytree
  - and one moreans binary tree
5. one question was on private key and public key. The quest. was f a wants to send a message to b that no one other than b should \$
  - A private key
  - A public key
  - B private key
  - B public key6.compliers maintain  
ans is symbol table From Diwaka
6. what a java interface not have ?  
ans - instance variables
7. what is done with java code on a web-page  
ans - downloaded and executed on ur pc
8. what is the order of deleting a node from a linked list given a ptr to it  
ans  $O(n)$  ( since u have to traverse the list to reach the prev. node)
9. what is RSA
10. how can A send a message to B so that B knows its from A

ans A uses his private key so that B can use A's public key

11. what is the best sort in worst case

ans heap sort

12. what can access protected members of a class

ans other classes of that program

13. what protocol is used by a machine to map an ip to hardware address

ans arp

14. what is the size of ipv6

ans 128 bits

15. how many keys are needed in symmetric and asymmetric cryptography?

ans - i dont know

16. how many keys are needed in symmetric and asymmetric cryptography?

ans - i dont know

17. one on a right threaded tree

18. very easy k-map

ans i think its b)

19. very easy ckt

ans choice which has option : a&c are equivalent

20. what in unix doesnt have a fd

ans process ( this was the first ques ).

Other Technical Questions:

Technical Questions

10. Which one is called family tree

11. virtual function and overloading

12. DHCP protocol

13. order of insertion and Heap sort

14. left recursion

15. find output: `for(l=1;a<=l;a++)`

`cout<<++a; cout <<a;`

16. DEBUG trigger (oracle)
17. In unrestricted session which system privilege mode is used (oracle)
18. NEXTVAL and CURRENTVAL in sequence (Oracle)
19. Unix system call .....like Var( )
20. OS 384 support which memory management
21. Complexity to access name from the given double link list
22. Which WAN network is suitable for the 100Km or m. distance network
23. If duplicate segments, file are there in hardisk which is best for management
  - a) FAT
  - b) SAT
24. stop n wait protocol is associated with which layer
25. find errors from the c and c++ codes.
26. 3 qns on operating systems. 1 qn on dijkstra algorithm
27. Using which pin it's possible to address 16 bit addresses even though there re only 8 address bits in 8085? Ans: ALE
28. Voltage gain for an amplifier is 100 while it is operating at 10 volts. What is the O/P voltage wen i/p is 1 volt
29. Quality factor indicates a) Quality of inductor b) quality of capacitor c) both
30. Qns related to bridges, routers and generators, which OSI layer they corresspond to. (Refer to stevens 4th chapter)
31. OPamp's I/P ciurrent, O/p current and CMRR is given, what is the voltage gain
32. 2-3 qns on scope of static variables in C. Qn to view o/p odf a C static var
33. Qn to print a value of a pointer
34. OPamp's I/P ciurrent, O/p current and CMRR is given, what is the voltage gain
35. A qn to find the physical address from a given virtual address, virtual to physical address table was provided
36. 6 bit mantissa and 8 bit exponent can present what maximum value?

37.4 bit window size in sliding window protocol, how many acknowledgements can be held?

38. Security functionality is provided by which layer of OSI

39. Frequency spectrums for AM, FM and PM (figure given, u'veto tell which Kind of modulation it belongs to)

40. Among AM and FM which is better and why?

41. Last stage of TTL NAND gate is called: Ans: Totem Pole Amplifier

42. SR to JK flip flop conversion. Ans:  $S = JQ'$ ,  $R = KQ$

43. LSB of a shift register is connected to its MSB, what is formed: Ans: RING Counter

44. 2-3 Qns based on Demorgan's laws (identities:  $(A+b)' = A'b'$ , etc)

45. 2 qns on Logic gates (O/p of logic gates)

46. Diff in IRET and RET statements of 8086

47. How many address bytes are required to address an array of memory chips ( $4 * 6$ ), each chip having 4 memory bits and 8k registers.

48. Diff. in memory mapped and I/P O/P mapped Input/Output (Refer a book on Microprocessor)

49. Qn on pipeline architecture

50. QN on LAPB protocol