

**cadence paper**

75 Marks paper..time limit 1.15 H

10 related to s/w & then 10 related to h/w & 55 aptitude.

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technical part

-----

1. ans:  $O(n^2)$

2. inorder & preorder seq. of tree is given & you have to find out post order..

very easy but do practice you can make one easy method by practice..

3. problem on pass by ref. & pass by value.

asn:  $x=5$  &  $y=3$

4.in assembler relocatable code generated by ...!!??

asn: indirect addressing

5.depth of the tree

ans:  $\log(n)$

6.very simple problem on binary tree ...

so learn who to build tree & insert new tree node...

ans: 10

7.problem on FSM

8.problem on stack

asn: "c"

9.problem on grammer

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thetical part 2

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1.  $A(XOR)B$
2. for modulo-13 ...FF req.
3. asn: modulo-6
4. ans:  $z(x+y)$
5. ans: 0,1
6. on DMA : I/O to Mem. without CPU monitoring
7. problem on ring counter

asn: 4 cycle

8.number given in form 20 digit representation ...

where A,B ,C ,,,,J

are 10,11,12,...20

number is 'IA'

what is the value in octal

asn:562

9. one program is given

inwhich statement are

$t= u\%v$

$t= u\%v$

$u=v$

$v=v-1...$

you have to find complexcity of prog.

asn: !!??

-----

last aptitude Part

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1.  $\log(X^3 + Y^3)$  where  $x=3/4$   $y=1/4$

$\log(3)$  ,  $\log(7)$  &  $\log(2)$  is given ...

ans:-0.385

2. one puzzle related cards ...

asn: 1 black card & 12 red crads

3. last question of paper ..

sum of money of A & B = Rs.10

diffrence of A + B = Rs.9

ans : 50 pesa

4. one paper is equlely folded 50 times...

what is new thikness of paper..

ans:  $2^{*} 50$

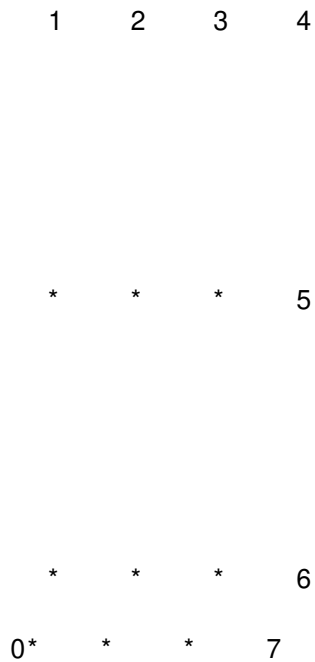
5. problem in which two circle are drawn ...& triangle..

ans:  $10\sqrt{2}$

6. one problem related to two train ...

ans:  $(T + t)/2$

7. connect nine point without take-off pen & without overlapping line segment



answer: start with 0 to 1 to 7 to 0 to 4 .

8. make four equle parts..

```
----  
| |  
| |--  
| |  
| |  
-----
```

hint : repeat same shape in it.

9. one area finding problem

in which in 10 \* 10 box small 2\* 2 box & one triangle ...

sheded area you have to find...

ans:33.33

CV paper:

1-18 General (i) Data sufficiency

(ii) Analytical

(iii) Mathematics

19-45 C&UNIX

1.  $|x-a|=a-x$  Ans: (c)  $x \leq a$

2. There is six letter word VGANDA . How many ways you can arrange the letters in the word in such a way that both the A's are together.

Ans : 120 (5x4!)

3. If two cards are taken one after another without replacing from a pack of 52 cards what is the probability for the two cards be queen. Ans :  $(4/52) * (3/51)$  (1/17)\*(1/13)

4.  $51 \times 53 \times \dots \times 59$  ; symbols ! - factorial

^ - power of 2

(a)  $99!/49!$  (b) (c) (d)  $(99! \times 25!)/(2^{24} \times 49! \times 51!)$

5. The ratio fo Boys to Girls is 6:4. 60% of the boys and 40% of girls take lunch in the canteen. What % of class takes lunch in canteen.

Ans : 52%  $(60/100) * 60 + (40/100) * 40$

Data Sufficiency : a) only statement A is sufficient , B is not

b) only statemnet B

c) both are necessary

d) both are not sufficient.

6. X is an integer. Is X divisible by 5?

A)  $2X$  is divisible by 5.

B)  $10X$  is divisible by 5.

Ans : A)

7. (A) Anna is the tallest girl

(B) Anna is taller than all boys.

(Q) . Is Anna the tallest in the class

Ans : c

8. maths question

9, 10 Analytical

Zulus always speak truth and Hutus always speak lies. There are three persons A,B&C. A met B and says " I am a Zulu or I am Hutu". We don't know what exactly he said. then B meets C and says to c that " A is a Zulu ". Then C replied " No, A is a Hutu ".

9. How many Zulus are there ? Ans 2( check)

10) Who must be a Zulu ? Ans B (check)

11,12,13,14.

-----

A father F has 5 sons, p,q,r,s,t. Not necessarily in this order.

Two are of same age. The eldest and youngest cannot be twins. T is elder to r and younger to q and s has three older brothers

q) who are the twins? s,t

q) who is the oldest and youngest? q, (s&t)

q)

q)

15,16,17,18

-----

There are 7 people who take a test among which M is the worst, R is disqualified, P and S obtain same marks, T scores less than S and Q scores less than P, N scores higher than every one.

Ans : N P S T Q R M (may be, just check) or N S P T Q R M

C & UNIX

-----

19. What does chmod 654 stand for.



Ans : `_rw_r_xr__`

20. Which of following is used for back-up files?

(a) compress (b) Tar (c) make (d) all the above Ans : b

21 what does find command do ? Ans : search a file

22. what does " calloc" do?

Ans : A memory allocation and initialising to zero.

23 what does exit() do?

Ans : come out of executing programme.

24. what is the value of 'i'?

```
i = strlen("Blue") + strlen("People") / strlen("Red") - strlen("green")
```

Ans : 1

25. i = 2

```
printf("%old %old %old %old ", i, i++, i--, i++);
```

Ans : check the answer.

26. Using pointer, changing A to B and B to A is Swapping the function

using two address and one temporary variable. a,b are address, t is temporary variable. How function look like?

Ans : `swap(int *, int *, int )`

27. In 'o' how are the arguments passed?

ans : by value.

28. Find the prototype of sine function.

Ans : `extern double sin(double)`

29. Scope of a global variable which is declared as static?

ans : File

30. ASCII problem

```
i=..
```

ans : 6

31 .

32. what is the o/p

```
printf(" Hello \o is the world ");
```

Ans : Hello is the world.

33. Clarifying the concept addresses used over array ; ie changing  
the address of a base element produces what error?

34. child process -- fork

```
child shell -- sh
```

35. Answer are lex 7 yacc & man read these things in UNIX

36. What is

```
int *p(char (*s)[])
```

Ans : p is a function which is returning a pointer to integer  
which takes arguments as pointer to array of characters.

10 qs were from s/w and 10 from h/w and

rest 55 qs were from Aptitude.

1. Inorder and preorder trees (expressions) are given and postorder tree (expression) is to be found out.

2. int v,u;

```
while(v != 0)
```

```
{
```

```
t = v % u;  
v = u;  
u = t;  
}
```

find the time complexity of the above program.

3. x is passed by reference, y passed by value.

```
x = 3, y = 2;  
foo(x, y)  
var integer x, y;  
{  
x = x + 2;  
y = y + 3;  
}  
main()  
{  
x = 5;  
y = 5;  
foo(x, y);  
print (x, y);  
}
```

output of the above pseudo code.

4. given a grammar, in which some productions of if then else etc were given. you had to choose one option that can be derived out of the

grammar.

5. how many flip flops you require for modulo 19 counter.

6. ring counter's initial state is 01000. after how many clock cycles will it return to the initial state.

7. some boolesn expression of the form  $x'y'z' + yz + ..$  ( something like this) find the simplified expression

8. given 6 bit mantissa in 2s complement form and 4 bit exponent is in excess-4 form in a floating point representation, find the number ans -(something) \* ( 2 to the power 3)

9. A signed no is stored in 10-bit register, what is the max and min possible value of the number.

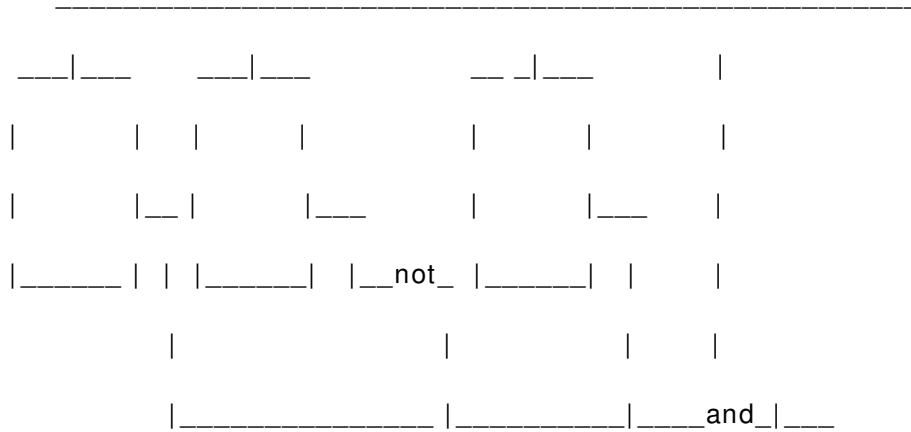
A few apti qs are follows.

10. A room is 30 X 12 X 12. a spider is ont the middle of the samller wall, 1 feet from the top, and a fly is ont he middle of the opposite wall 1 feet from the bottom. what is the min distance reqd for the spider to crawl to the fly.

11. A man while going down in a escalator(which is miving down) takes 50 steps to reach down and while going up takes 125 steps. If he goes 5 times faster upwards than downwards. What will be the total no of steps if the escalator werent moving.

12. 2/3 of corckery(plates) are broken, 1/2 have someother thing(handle) broken , 1/4 are both broken and handle broken. Ultimately only 2 pieces of corckery were without any defect. How many crockery were there in total.

13.



boxes are negative edge triggered flip flops and 'not' and 'and' are gates. What is this figure.

ans- modulo-5

14.

It is difficult to draw a figure but another question was in which some NAND and OR gates were given.

ans - Z = true.

## CADENCE PLACEMENT PAPER

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technical part  
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very easy but do practice you can make one easy method by practice..
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asn:  $x=5$  &  $y=3$
4. in assembler relocatable code generated by ...!??  
asn: indirect addressing
5. depth of the tree  
ans:  $\log(n)$
6. very simple problem on binary tree ...  
so learn how to build tree & insert new tree node...

ans: 10

7. problem on FSM
8. problem on stack  
asn: "c"
9. problem on grammar

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asn: 4
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number is 'IA'

what is the value in octal

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in which statement are

$t = u \% v$

$t = u \% v$

$u = v$

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you have to find complexity of prog.

asn: !!??

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last aptitude Part

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1.  $\log(X^3 + Y^3)$  where  $x=3/4$   $y=1/4$   
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what is new thikness of paper..

ans:  $2^{50}$

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ans:  $(T + t)/2$

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\* \* \* 5

\* \* \* 6

0\* \* \* 7

answer: start with 0 to 1 to 7 to 0 to 4 .

8. make four equal parts..

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----  
||  
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hint : repeat same shape in it.

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CV paper:

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36. What is

```
int *p(char (*s)[])
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Ans : p is a function which is returning a pointer to integer which takes arguments as pointer to array of characters.

## CADENCE PLACEMENT PAPER

10 qs were from s/w and 10 from h/w and rest 55 qs were from Aptitude. Aпти qs were analytical and were to be done in 45 min. most of them were of GRE type.

There were some qs in figures, ie find the next figure

Also find the odd one out, among some figures etc, jumbled words, refer to some IMS material on non verbal figurative test.

then there were paragraph based qs, comprehension qs,

also some qs on suffix and prefix eg

BEG\_\_SIDE is given, 'IN' if filled in the blanks give two words BEGIN and INSIDE, like that.

Also in my next mail I will be sending some more qs from Cadence paper.

Till then you should prepare thoroughly for aptitude

1. Inorder and preorder trees (expressions) are given and postorder tree (expression) is to be found out.

```
2. int v,u;
while(v != 0)
{
t = v % u;
v = u;
u = t;
}
```

find the time complexity of the above program.

3. x is passed by reference, y passed by value.

```
x = 3, y = 2;
foo(x, y)
var integer x, y;
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x = x + 2;
y = y + 3;
}
main()
```

```
{  
x = 5;  
y = 5;  
foo(x, y);  
print (x, y);  
}
```

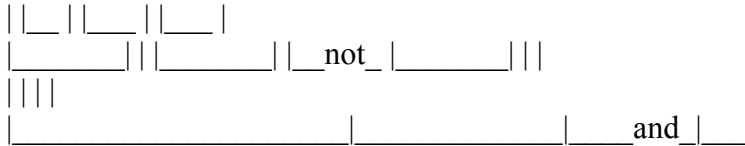
output of the above pseudo code.

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5. how many flip flops you require for modulo 19 counter.
6. ring counter's initial state is 01000. after how many clock cycles will it return to the initial state.
7. some boolean expression of the form  $x'y'z' + yz + ..$  ( something like this) find the simplified expression
8. given 6 bit mantissa in 2s complement form and 4 bit exponent is in excess-4 form in a floating point representation, find the number ans  $-(\text{something}) * (2 \text{ to the power } 3)$
9. A signed no is stored in 10-bit register, what is the max and min possible value of the number.

A few apti qs are follows.

10. A room is 30 X 12 X 12. a spider is on the middle of the smaller wall, 1 feet from the top, and a fly is on the middle of the opposite wall 1 feet from the bottom. what is the min distance reqd for the spider to crawl to the fly.
11. A man while going down in an escalator(which is moving down) takes 50 steps to reach down and while going up takes 125 steps. If he goes 5 times faster upwards than downwards. What will be the total no of steps if the escalator weren't moving.
12.  $\frac{2}{3}$  of crockery(plates) are broken,  $\frac{1}{2}$  have something else(handle) broken,  $\frac{1}{4}$  are both broken and handle broken. Ultimately only 2 pieces of crockery were without any defect. How many crockery were there in total.
- 13.

---

boxes are negative edge triggered flip flops and 'not' and 'and' are gates. What is this figure.

ans- modulo-5

14.

It is difficult to draw a figure but another question was in which some NAND and OR gates were given.

ans - Z = true.

cadence paper...

As I wrote you 75 Marks paper..time limit 1.15 H

### CADENCE PLACEMENT PAPER

1. consider the foll. pseudocode..

```
for(i=1 to n) do
begin if(i is odd) begin(for j=1 to n)
do S1
else s2
END
```

WHERE S1 and S2 r some statements..what is ORDER OF COMPLEXITY...OF s1..

ans. (d) none of these.

2. cool question on passing by reference and value ....

ans . (d) 5:2

3. a routine ques on bin trees .. left child and right child ...

ans . (b) 10

4. consider the following syntax ...

sentence ::= A

A ::= B | IF A THEN A ELSE A,

B ::= C | B + C | +C

C ::= D | C \* D | \* D

D ::= x | -D

HERE X IS A TERMINAL FIND THE CORRECT SENTENCE GENERATED BY ABOVE

GRAMMER

a. IF x+x then x\*x else -x

b. iF X THEN IF -X THEN X ELSE x +x else x\*x

c. if -x then x else if x then x+x else x

d. all of above

ans . try ur self

5. inorder a b c d e f g

preorder b a f d c e g

what is post order

ans a c e d g f b

6.

simple ques on stack .. put b c e x h z j u and there is a series of push and pop operations..

ans.(c) c

7.

depth of binary tree

ans. (c)  $\log_2(n+1) - 1$

8. a problem of lang reco. graphical..

ans. (c) even no. of '0' and '1'

9.complexity of an algo.

ans. (a)  $v \log(u)$  where u and v are integer variables.

10.

relocatable code in assembly lang. can be written by..

a. using a relative address scheme.

b. using absolute address scheme.

c. indirect address scheme

d. none of the above.

ans . (b) make it sure..

#### HARDWARE PART:

1. NUMBER SYSTEM WITH BASE 18

1A= ?

ans. (d) none

2.signed int in a 10 bit mem. element

ans.(d) none

3.DMA data transfer takes place between

ans. (d)IO port and memory not controlled bY CPU

4. modulo 19 counter will require

ans . (C) 5 flip flops

5.stroing real no. in 10 bits ....

ans .(B)  $-0.5 (2 \text{ to the power } 11)$

6. combinatorial circuit with 3 nand and one or with 2 input and one output

ans. (D) $x=1$

7.counter with 3 flip flops and a logic ckt.

ans .(a) modulo 5 counter

8. ring counter

ans.(B) 5

9.a picture of MOS pas gate with b and c input to the gates

ans. (B)  $b=0,c=1$

10. SIMPLIFY function  $f = (\bar{x})(\bar{y})(z) + yz + x(z)$   
ans. (D) NONE OF ABOVE

#### ANALYTICAL SECTION :

there r many figurative questions which cant be sent if u need them  
despirately i will send u by fax .. give me ur fax id and time u want  
me to do it..

. the questions include completing series ,  
ques. on verbal ability  
short comprehensions  
and geometrical questions.  
practice IMS materials on anal. quant. and verbal.

#### CADEANCE

##### Interview Procedure

The information on the interview is pretty sketchy but it may consist of both technical  
grilling and HR interview.

The written test consists of the following sections:

1. Software Section -- Consists of 10 questions of MCQ type. (10 min)
2. Hardware Section -- Consists of 10 questions of MCQ type. (10 min)
3. Aptitude Section -- Consists of 55 questions of MCQ type. Aptitude Questions were analytical and were to be done in 55 min.

#### SAMPLE PAPER – I

##### Technical

1. Inorder and preorder trees (expressions) are given and postorder tree (expression) is to be found out.
2. given a grammar, in which some productions of if then else etc were given. you had to choose one option that can be derived out of the grammar.
3. how many flip flops you require for modulo 33 counter.  
ans : 6 f/f
4. 7 bit ring counter's initial state is 0100010. after how many clock cycles will it return to the initial state.

ans : 6 cycles

5. some boolesn expression of the form  $x'y'z' + yz + ..$  ( something like this) find the simplified expression

ans: $z(x+y)$

6. given 6 bit mantissa in 2s complement form and 4 bit exponent is in excess-4 form in a floating point representation, find the number

ans  $-(\text{something}) * (2 \text{ to the power } 3)$

7. A signed no is stored in 10-bit register, what is the max and min possible value of the number.

ans :  $2^{10} - 1$  .....max  $-2^{10}$  .....min

13.int y int x

$y=5+ x=5-$

+ -

+ -

+ -

$6*3 \ 6*3$

;;

`printf("%d", x); printf("%d",y);`

what would be the o/p of the code.

ans :  $x=23;y=23$ ;

8. a queue four elements a,b,c,d are there ,a=head d=tail. now following operations are performed

1.deletion

2, insertion of w and then x

3. again deletion

4. insertion of y

what is the format of the queue

9. configuration of four nand gates forming a XOR gate, but replace the last nand gate with a NOR gate.find the output expression.

10. simplify  $xy(\bar{z})+xy(\bar{z})+xyz$

11.operator overloading in c++ is

ans.provide operators with user defined functions.

12. in a machine a flating point number is represented in 2's complement mantissa 6 MSB exponent 4 LSB(excess 4 form) then 01101\_0111(10 bits)

ans  $.656 * 2^{\text{exp}(-3)}$

Aptitude



1. A room is 30 X 12 X 12. a spider is on the middle of the smaller wall, 1 feet from the top, and a fly is on the middle of the opposite wall 1 feet from the bottom. what is the minimum distance required for the spider to crawl to the fly.

2. A man while going down in an escalator (which is moving down) takes 50 steps to reach down and while going up takes 250 steps. If he goes 5 times faster upwards than downwards. What will be the total number of steps if the escalator were not moving.  
ans 150 steps

3.  $\frac{2}{3}$  of crockery (plates) are broken,  $\frac{1}{2}$  have something (handle) broken,  $\frac{1}{4}$  are both broken and handle broken. Ultimately only 2 pieces of crockery were without any defect. How many crockery were there in total.  
ans 24

4. There were 105 handshakes. how many persons were there in party.

5. there were 6 boys and 6 girls. how many ways they can be arranged in a pair.

6.  $15 \div (+120) + *9/8$  convert into postfix and calculate  
ans. 98

7. meanings of word infallibility (antonym) -> mistakenly conjurations (synonym):  
incantation

8. ring \_ \_ \_ ater  
fill in the dash with three letters to form a meaningful word  
ans. mas

9. willing \_ \_ \_ \_ sports. (four letter word)  
23. there was a question in which few incomplete letters were given and we have to complete with three letters so that they all form a meaningful word.  
wh \_ \_ \_  
r \_ \_ \_  
ans. ich

10. complete the series  
12 8 14 7 16 \_  
ans 6

11. [ : E THEN CIRCLE INSIDE A CIRCLE IS: -----  
ANS CIRCLE WITH A DASH AS A RADIUS.  
27. A GEOMETRICAL QUESTION WITH TRIANGLE IN A QUADRANT (cannot draw the figure)  
ans 10 (probably)



19. WHAT IS THE CONDITION OF B&C FOR OUTPUT TO BE ----  
ANS: B=0, C=1.

20. there is a 4:1 mux. obtain fn (B' OR (A' XOR C)) when control inputs are A(LSB) & B(MSB), what should be the inputs (I0, I1, I2, I3).  
ANS: 1 1 C' C

21. excess 3 code of nos. 0 to 9 is given by nos ABCD  
0 1100  
1  
...  
9 ...  
FIND The minimised function?

22. 21 base A-K, ie A=10, B=11, .. K=20 What is the Octal equivalent of KA?  
ans. 656

23. odd man out  
a) rhoes  
b) hepes  
c) owc  
d) guinepen  
ans d) jumbled letters for penguin

24.  
odd man out  
a) richa  
b) bleat  
c) pratec  
d)  
ans) jumbled for carpet

25) one simple question wherein a rectangle is inscribed in a circle and one of the diagonal is to be found...which is the radius of the circle...hence the ans is 10.

26. there is a trekking team which takes a halt after 10 hours and the leadership changes after 5 hours. leadership changes in alphabetical order...kamala is leading now with mary ,malti, ---and sita...who will lead after two rests.  
ans. sita.

SAMPLE PAPER – II

## Technical

1. in assembler relocatable code generated by ...!??

asn: indirect addressing

```
2. int v,u;
while(v != 0)
{
t = v % u;
v = u;
u = t;
}
```

find the time complexity of the above program.

3. x is passed by reference, y passed by value.

```
x = 3, y = 2;
foo(x, y)
var integer x, y;
{
x = x + 2;
y = y + 3;
}
main()
{
x = 5;
y = 5;
foo(x, y);
print (x, y);
}
```

output of the above pseudo code.

4. how many flip flops you require for modulo 19 counter.

5. ring counter's initial state is 01000. after how many clock cycles will it return to the initial state.

6. some boolesn expression of the form  $x'y'z' + yz + ..$  ( something like this) find the simplified expression

7. given 6 bit mantissa in 2s complement form and 4 bit exponent is in excess-4 form in a floating point representation, find the number  
ans -(something) \* ( 2 to the power 3)

8. A signed no is stored in 10-bit register, what is the max and min possible value of the number.

Aptitude

1.  $\log(X^3 + Y^3)$  where  $x=3/4$   $y=1/4$   
 $\log(3)$ ,  $\log(7)$  &  $\log(2)$  is given ...

ans:-0.385

2 last question of paper ..  
sum of money of A & B =Rs.10  
diffrence of A + B = Rs.9

ans : 50 pesa

3. one paper is equlely folded 50 times...  
what is new thikness of paper..

ans:  $2^{50}$

4. connect nine point without take-off pen & without overlapping line segment

1 2 3 4

\* \* \* 5

\* \* \* 6

0\* \* \* 7

ans: start with 0 to 1 to 7 to 0 to 4 .

5. make four equle parts..

**Cadence paper..... 04**

Technical part 1

1. ans: $O(n^2)$

2. inorder & preorder seq. of tree is given & you have to find out post order..  
very easy but do practice you can make one easy method by practice..

3. problem on pass by ref. & pass by value.

asn:  $x=5$  &  $y=3$

4.in assembler relocatable code generated by ...!?!?

asn: indirect addressing

5.depth of the tree

ans: $\log(n)$

6.very simple problem on binary tree ...

so learn who to build tree & insert new tree node...

ans: 10

7.problem on FSM

8.problem on stack  
asn:"c"  
9.problem on grammer

#### Technical part 2

1. A(XOR)B  
2. for modulo-13 ...FF req.  
asn: 4  
3. asn: modulo-6  
4. ans: z(x+y)  
5. ans: 0,1  
6. on DMA : I/O to Mem. without CPU monitoring  
7. problem on ring counter  
asn: 4 cycle  
8.number given in form 20 digit representation ...  
where A,B ,C ,,,,J  
are 10,11,12,...20

number is 'IA'  
what is the value in octal  
ans:562  
9. one program is given  
inwhich statement are  
t= u%v  
t= u%v  
u=v  
v=v-1...  
you have to find complexcity of prog.  
asn: !!??

#### Aptitude Part

1.  $\log(X^{**3} + Y^{**3})$  where  $x=3/4$   $y=1/4$   
 $\log(3)$  ,  $\log(7)$  &  $\log(2)$  is given ...  
ans:-0.385  
2. one puzzle related cards ...  
asn: 1 black card & 12 red crads  
3. last question of paper ..  
sum of money of A & B =Rs.10  
diffrence of A & B = Rs.9

ans : 50 pesa

4. one paper is equlely folded 50 times...

what is new thikness of paper..

ans:  $2^{*50}$

5. problem in which two circle are drawn ...& triangle..

ans:  $10\sqrt{2}$

6. one problem related to two train ...

ans:  $(T + t)/2$

7. connect nine point without take-off pen & without overlapping line segment

1 2 3 4

\* \* \* 5

\* \* \* 6

0\* \* \* 7

answer: start with 0 to 1 to 7 to 0 to 4 .

8. make four equle parts..

```
----  
||  
||--  
||  
||  
-----
```

hint : repeat same shape in it.

9. one area finding problem

in which in  $10 * 10$  box small  $2*2$  box & one triangle ...

sheded area you have to find...

ans:33.33

CV paper:

br>

1-18 General (i) Data sufficiency  
(ii) Analytical  
(iii) Mathematics  
19-45 C & UNIX

1.  $|x-a|=a-x$  Ans: (c)  $x \leq a$

2. There is six letter word VGANDA . How many ways you can arrange the letters in the word in such a way that both the A's are together.

Ans : 120 (5x4!)

3. If two cards are taken one after another without replacing from a pack of 52 cards what is the probability for the two cards be queen. Ans :  $(4/52) * (3/51) (1/17) * (1/13)$

4.  $51 \times 53 \times \dots \times 59$  ; symbols ! - factorial

^ - power of 2

(a)  $99!/49!$  (b) (c) (d)  $(99! \times 25!)/(2^{24} \times 49! \times 51!)$

5. The ratio of Boys to Girls is 6:4. 60% of the boys and 40% of girls take lunch in the canteen. What % of class takes lunch in canteen.

Ans : 52%  $(60/100) * 60 + (40/100) * 40$

Data Sufficiency : a) only statement A is sufficient , B is not

b) only statemnet B

c) both are necessary

d) both are not sufficient.

6. X is an integer. Is X dvisible by 5?

A) 2X is divisible by 5.

B) 10X is divisible by 5.

Ans : A)

7. (A) Anna is the tallest girl

(B) Anna is taller than all boys.

(Q) . Is Anna the tallest in the class

Ans : c

8. maths question



9, 10 Analytical

Zulus always speak truth and Hutus always speak lies. There are three persons A,B&C. A met B and says " I am a Zulu or I am Hutu". We don't know what exactly he said. then B meets C and says to c that " A is a Zulu ". Then C replied " No, A is a Hutu ".

9. How many Zulus are there ? Ans 2( check)

10) Who must be a Zulu ? Ans B (check)

11,12,13,14.

-----

A father F has 5 sons, p,q,r,s,t. Not necessarily in this order. Two are of same age. The eldest and youngest cannot be twins. T is elder to r and younger to q and s has three older brothers

q) who are the twins? s,t

q) who is the oldest and youngest? q, (s&t)

q)

q)

15,16,17,18

-----

There are 7 people who take a test among which M is the worst, R is disqualified, P and S obtain same marks, T scores less than S and Q scores less than P, N scores higher than every one.

Ans : N P S T Q R M (may be, just check) or N S P T Q R M

C & UNIX

19. What does chmod 654 stand for.

Ans : `_rw_r_xr__`

20. Which of following is used for back-up files?

(a) compress (b) Tar (c) make (d) all the above Ans : b

21 what does find command do ? Ans : search a file

22. what does " calloc" do?

Ans : A memory allocation and initialising to zero.

23 what does exit() do?

Ans : come out of executing programme.

24. what is the value of 'i'?

`i=strlen("Blue")+strlen("People")/strlen("Red")-strlen("green")`

Ans : 1

25. `i=2`

```
printf("%old %old %old %old ",i, i++,i--,i++);
```

Ans : check the answer.

26. Using pointer, changing A to B and B to A is Swapping the function using two address and one temporary variable. a,b are address, t is temporary variable. How function look like?

Ans : `swap(int *, int *, int )`

27. In 'o' how are the arguments passed?

ans : by value.

28. Find the prototype of sine function.

Ans : `extern double sin(double)`

29. Scope of a global variable which is declared as static?

ans : File

30. ASCII problem

`i=..`

ans : 6

31 .

32. what is the o/p

```
printf(" Hello \o is the world ");
```

Ans : Hello is the world.

33. Clarifying the concept addresses used over array ; ie changing the address of a base element produces what error?

34. child process -- fork

```
child shell -- sh
```

35. Answer are lex 7 yacc & man read these things in UNIX

36. What is

```
int *p(char (*s)[])
```

Ans : p is a function which is returning a pointer to integer which takes arguments as pointer to array of characters.

Test has 2 sections

1. Aptitude consist of 4 sections n consisted of diagrammatic reasoning n non verbal stuff

2. Technical test consisted of 4 sections each of pseudocode,c,unix n sql all tests r computer based

The tests were :

1. Analytical reasoning: maths
2. diagrammatic reasoning: In this, we were given 8 diagrams and had to select the 9th corresponding  
dg frm the givn choices. U have to be very fast in this test.
3. problems to be solved using Venn diagrams.
  
4. This test was to check our adaptation to the computer screen. We had to solve abt 30 q's in 15 min.  
U have to be very very fast in this also.
5. In this test we were given a booklet of abt 7-8 pgs in which there was the syntax of some  
hypothetical lang, ( its syntax was somewhat like Visual Basic). This was very easy since the  
whole syntax was given & u can refer to it. We were given almost 90-120mins for this test. If u  
want u can rd the booklet before the start of the test. The q's consisted of programs for which  
u have to find the o/p or where there is wrong syntax etc.
6. C test: Study pointers very well . Visit [www.c4swimmers.esmartguy.com](http://www.c4swimmers.esmartguy.com) that helps you to test the  
C/C++  
programming strengths. It also consists of q's on args of main function, i.e. argc and argv
7. SQL test: It consisted of sql queries mainly inner join, outer join ,group by statements etc.
8. Unix test: kernel, 1-2 q's on TCP/IP, basic commands ( more on commands).

### **Some Sample Questions**

1. All birds are animals. All animals are four legged. Implications
  - a. All animals which are four legged are birds.
  - b. All birds are four legged

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[www.123eng.com](http://www.123eng.com) Engineering the Engineers

c. Some birds are four legged

d. Some birds are animals but not four legged.

1. a and b 2. b and c 3. only b 4. only d

2. All fat people are not dancers, food loving people are all fat .Find the contradictory statement?

3. The day before yesterday was WEDNESDAY then the day after 2morrow is? 3. A goes to the party if B goes

B goes to the party if C goes

C goes to the party if D goes

Totally how many will go to the party?

4. Mary's father's brother is Andrews Andrews daughter's son is Sunil Brothers name is Sam Who is Sam to Sunil?

5. If  $A > B, A < C, B > D, B < D$  Find the Shortest?

6. There are A,B techers and C,D doctors.Find the possible no of combinations that should not be repeated more than once?

7. There are 3 males and 2 females,find the possible no of orders that can be made by making the arrangement as in between two males one women is allowed to sit? 8.

Computer checking:

### Unix Test

8. The syntax of command statement in UNIX 10. If the permission for a file is 000,then the file can be accessed by whom?

9. Where we can run two same programs on a UNIX console at the same time?

10. Which is the Shell of UNIX?

11. What is the number of the masked code ee@?

12. If we are terminated at the middle of the program execution in UNIX,what will happen to the program,it will (i) continue running

(ii) terminate

(iii) the o/p will be send to ur mail?

13. what is the command to connect to remote terminals

14. what is the command to fetch first 10 records in a file

15. unix has the following features

a. multithreading

b. multitasking

c. ..

### SQL

16. We are UPDATING a field in SQL and ALTER the row also. After giving the COMMIT command the system is crashed. What will happen to the commands given, whether it will UPDATE and ALTER the table or not?

17. How will add additional conditions in SQL?

### C Test

18. How will u print TATA alone from TATA POWER using string copy and concatenate commands in C?

19. If switch(n)

```
case 1:printf("CASE !");
```

```
case(2):printf("default");
```

```
break;
```

What will be printed?

20. How will u divide two numbers in a MACRO?