

## Cadance Sample Question Paper

1 In assembler relocatable code generated by ???  
ans: 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 boolean 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  
difference of A + B = Rs 9

ans : 50 pesa

3 one paper is equily folded 50 times what is new thickness 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 A room is 30 X 12 X 12 a spider is ont the middle of the samler 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

6 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

7 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

8 It is difficult to draw a figure but another question was in which some NAND and OR gates were given  
ans - Z = true