

# Adobe Technical Test paper 1

Written Test :-

- 1) Wap to reverse a linked list and sort the same.
- 2) Given two integers A & B. Determine how many bits required to convert A to B. Write a function `int BitSwapReqd(int A, int B);`
- 3) Write an algorithm to insert a node into sorted linked list. After inserting, the list must be sorted.
- 4) Without using `/`, `%` and `*` operators. write a function to divide a number by 3. `itoa()` function is available.
- 5) Wap to swap two integer pointers.
- 6) Write a funcn `int round (float x)` to round off a floating point num to int.
- 7) write an ALP to find sum of First n natural numbers using the following Instructions  
LDA num ; load Accumulator with num  
DCR R ; decrement Register R  
INR R ; increment Register R  
MOV x,y ; move the contents of register y into register x  
JZ label ; jump to label if A=0  
DJNZ label; Decrement & Jump if A <> 0  
you can use B & C registers in addition to A register
- 8) Prove that a tree is BST. What is height of a tree?
- 9) Given A, B & C Boolean polynomials. Prove That  $(A+BC) = (A+B) (A+C)$

Set 2

1. Binary search Tree was given. Find 4th smallest element.
2. Some code in assembly was given and given five options. What is being calculated?  
Ans  $(XY) 2 + Y + Z$
3. Represent  $(-5)_{10}$  in 2's complement representation in 8 bits
4. Expression was given. Draw tree and then find the postfix

Some commands in the assembly language were given. Then need to convert this code in assembly

```
A=300;  
For (i=0 ; i<=10 ; i++)
```

$A=A+200;$