***Week – 4 (19.04.2021 – 25.04.2021)***

***CODES IN PDF***

1. ***Reverse Bits:***

class Solution {

public:

uint32\_t reverseBits(uint32\_t n) {

int i, t;

uint32\_t rev=0;

for(i=31; i>=0; i--)

{

rev = rev + ((1 & n) << i);

n = n>>1;

}

return rev;

}

};

1. ***Power of Two:***

class Solution {

public:

bool isPowerOfTwo(int n) {

if(n <= 0) return false;

int i;

for(i=0; i<32; i++)

if(n & (n-1)) return false;

return true;

}

};

1. ***Prime Number of Set Bits in Binary Representation:***

class Solution {

public:

bool isprime(int n)

{

if(n<2) return false;

int i;

for(i=2; i<=n/2; i++)

if(n%i == 0) return false;

return true;

}

int countPrimeSetBits(int L, int R) {

int i, bit, count = 0, n;

for(i=L; i<=R; i++)

{

bit = 0;

n = i;

while(n)

{

if(n & 1 == 1) bit++;

n = n>>1;

}

if(isprime(bit)) count++;

}

return count;

}

};