

ASSIGNMENT NO. 7

Question no. 1

```
#include<stdio.h>

int main() {

    int i,n,prev=0,curr=1,next=0;

    printf("enter a number");

    scanf("%d",&n);

    for(i=0;i<n;i++) {

        next=curr+prev;

        printf("%d ",next);

        prev=curr;

        curr=next;

    } }
```

Question no. 2

```
#include<stdio.h>

int main() {

    int i,n,prev=0,curr=1,next=0;

    printf("enter a number");

    scanf("%d",&n);

    for(i=0;i<n;i++) {

        next=curr+prev;

        prev=curr;

        curr=next;

    }

    printf("%d ",next); }
```

Question no. 3

```
#include<stdio.h>

int main() {

    int i,n,prev=0,curr=1,next=0;
```

```

printf("enter a number");
scanf("%d",&n);
for(i=0;i<n;i++) {
    next=curr+prev;
    prev=curr;
    curr=next;
    if(n==next){
        printf("fabonacci series");
        break;
    }
    if(next>n){
        printf("not fabonacci series");
        break;
    }
}

```

Question no. 4

```

#include<stdio.h>

int main() {
    int a,b,hcf;
    printf("enter a number");
    scanf("%d %d",&a,&b);
    int min=a<b?a:b;
    for(int i=1;i<=min;i++) {
        if((a%i==0)&&(b%i==0))
            hcf=i;
    }
    printf("hcf is %d",hcf);
}

```

Question no. 5

```
#include<stdio.h>

int main() {
    int a,b,hcf;
    printf("enter a number");
    scanf("%d %d",&a,&b);
    int min=a<b?a:b;
    for(int i=1;i<=min;i++) {
        if((a%i==0)&&(b%i==0))
            hcf=i;
    }
    if(hcf==1) {
        printf("coprime");
    }
    else {
        printf("not coprime");
    }
}
```

Question no. 6

```
#include<stdio.h>

int main() {
    int i,n,flag=0;
    for(n=1;n<=100;n++)
    {
        flag=0;
        for(i=2;i<=n/2;i++)
        {
            if(n%i==0)
                flag=1;
```

```

    }
    if(flag==0)
        printf("%d ",n);
    }
    return 0;
}

```

Question no. 7

```

#include<stdio.h>

int main() {
    int i,n,flag=0;
    for(n=20;n<=200;n++) {
        flag=0;
        for(i=2;i<=n/2;i++) {
            if(n%i==0)
                flag=1;
        }
        if(flag==0)
            printf("%d ",n);
    }
    return 0;
}

```

Question no. 8

```

#include<stdio.h>

int main() {
    int i,n,flag=0;
    for(n=20; 1 ;n++) {
        flag=0;
        for(i=2;i<=n/2;i++) {
            if(n%i==0)

```

```
        flag=1;
    }
    if(flag==0) {
        printf("%d ",n);
        break;
    }
}
return 0;
```

Question no. 9

```
#include<stdio.h>

int main() {
    int n,pow,result=0,temp;
    printf("enter a number");
    scanf("%d",&n);
    temp=n;
    while(n>0) {
        pow=n%10;
        result=result+(pow*pow*pow);
        n=n/10;
    }
    if(temp==result)
        printf("armstrong number");
    else
        printf("not armstrong number");
    return 0;
}
```

Question no. 10

```
#include <math.h>
#include <stdio.h>
```

```
int main()
{
    int i, sum, num, count = 0;
    printf("All Armstrong number between 1 and 1000 are:\n");
    for (i = 1; i <= 1000; i++) {
        num = i;
        while (num != 0) {
            num /= 10;
            count++;
        }
        num = i;
        sum = pow(num % 10, count)
            + pow((num % 100 - num % 10) / 10, count)
            + pow((num % 1000 - num % 100) / 100, count);
        if (sum == i) {
            printf("%d ", i);
        }
        count = 0;
    }
}
```