Assignment

10 Marks

Upload the assignment on or before 25 April in vtop

1. **Apply the control flow obfuscation technique on the following c program. 5M**

```
#include<stdio.h>
#include<string.h>
void main()
{
char a[15],b[15],c[15];
char name[10], colg[10];
int i;
clrscr();

printf("Enter College Name");
scanf("%10s",colg);
printf("name:");
scanf("%10s",name);
printf("street name");
scanf("%15s",a);
printf("town name");
scanf("%15s",b);
printf("district name");
scanf("%15s",c);
```

```
printf("name:%s\n",name);
printf("college name:%s\n",colg);

for(i=0;i<strlen(a);i++)
  printf("\nc[%d] value %c  and address %p",i,a[i],&a[i]);
for(i=0;i<strlen(b);i++)
   printf("\nb[%d] value %c  and address %p",i,b[i],&b[i]);
for(i=0;i<strlen(c);i++)
  printf("\na[%d] value %c  and address %p",i,c[i],&c[i]);
}
```

2. Find the vulnerabilities of the following program and fix it. 5M

```
#include<stdio.h>

main()
{
char c;
clrscr();
printf("find the sum of numbers\n");
do{
sum_numbers();
printf("\npress 'y' to find another sum of numbers\n");
```

```
c=getch();
}while(c=='y');
}
sum_numbers()
{
char a[26];
int n=0;
int i;
int *p;
int sum=0;
int rem;
int temp;
printf("enter the block size\n");
scanf("%d",&n);
p=(int*)malloc(n*2);
for(i=0;i<n;i++)
{
scanf("%d",(p+i));
}
for(i=0;i<n;i++)
{
sum=sum+*(p+i);
}
printf("\ntotal sum %2d",sum);
temp=sum;
```

```
for(i=0;i<26;i++)
{
rem=temp%10;
temp=temp/10;
c[i]=65+i+rem; // ascii value 65-A
if(temp==0)
temp=sum;
}

printf("final string:%s",c);

}
```