1. Write down the output of the following C program

```
#include <stdio.h>
typedef struct dt
{
int dd,mm,yy;
}dob;
int main()
{
dob p,*r;
int a,*q;
q=&p.mm;
r=&p;
r->mm=4;
*q=6;
p.dd=23;
r->yy=2012;
r->dd=21;
printf("x=%d y=%d z=%d\n",p.dd,p.mm,p.yy);
p.mm=7;
a=*q+r->mm+p.mm;
printf("w=%d\n",a);
return 0;
}
------------------
x=      y=      z=
w=
------------------
```

2. The following C statements are part of a C program. Write down the output.

```
    i. int a=3,b=2,c=1;
       int *p,*q,**r;
       p=&a;
       r=&q;
       q=&c;
       a=*q+**r;
       printf("x=%d y=%d z=%d\n",**r,*p,*q);
       *r=p;
       a=*q+**r;
       printf("w=%d\n",a);
       ------------------
       x=      y=      z=
       w=
       ------------------
```

ii. `int a[3][4]={{4,3,2,1},{10,9,8,7},{1,2,3,4}};`

```
int *p,**q;
q=&p;
p=a[1]+1;
printf("x=%d  y=%d\n",p[1],**q);
printf("u=%d  v=%d\n",*(*(a+2)-1),*(p+3));
printf("r=%d\n",*(*a+1)+4);
```

```
------------------
x=      y=
u=      v=
r=
------------------
```

iii. `char *p="B for Balloon";`

```
char q[15]="A for Apple";
printf("x=%c  y=%c\n",*(p+10)-2,*(&q[4]-2));
printf("u=%c v=%c  w=%d\n",p[8],*q+8,8[p]-q[8]);
```

```
------------------
x=      y=
u=      v=      w=
------------------
```

3. The output of the program is **5 4 2 1 4 8**. The program uses a single function **achnge**. Complete the function.

```c
#include <stdio.h>
//write the function prototype here
int main()
{int a[5]={5,4,3,2,1},n=5,m,i;
m=achnge(a+3);  //function called here
for(i=0;i<n;i++)
{
   printf("%d  ",a[i]);
}
printf("%d\n",m);
return 0;
}
//write the function here
```