**10. Consider the following process table with number of processes that contains allocation field (for showing the number of resources of type: A, B and C allocated to each process in the table), max field (for showing the maximum number of resources of type: A, B, and C that can be allocated to each process). Write a program to calculate the entries of need matrix using the formula: (Need)i = (Max)i - (Allocation)i**

**Process Allocation Max Availble**

**A B C A B C A B C**

**P0 1 1 2 5 4 4 3 2 1**

**P1 2 1 2 4 3 3**

**P2 3 0 1 9 1 3**

**P3 0 2 0 8 6 4**

**P4 1 1  2 2    2    3**

**Program :**

#include<stdio.h>

int main(){

int n,i,j;

printf("enter the number of process : ");

scanf("%d",&n);

int m[n][3],a[n][3],nd[n][3];

printf("Enter the max : \n");

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

scanf("%d %d %d",&m[i][0],&m[i][1],&m[i][2]);

}

printf("Enter Available : \n");

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

scanf("%d %d %d",&a[i][0],&a[i][1],&a[i][2]);

}

printf(" need matrix : \n");

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

for(j=0;j<3;j++){

nd[i][j]=m[i][j]-a[i][j];

}

}

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

printf("%d %d %d \n",nd[i][0],nd[i][1],nd[i][2]);

}

}

**Output :**

