

Develop a C program to simulate the following contiguous memory allocation Techniques:

a) Worst fit b) Best fit c) First fit.

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

```
void first_fit(int bs1[],int ps[])
```

```
{
    for(int i=0;i<4;i++)
    {
        int flag=0;
        for(int j=0;j<5;j++)
        {
            if(ps[i]<=bs1[j])
            {
                printf("%d process:%d block\n",i,j);
                bs1[j]-=ps[i];
                flag=1;
                break;
            }
        }
        if(flag==0)
        {
            printf("No allotment of %d process\n",i);
        }
    }
}
```

```
void best_fit(int bs[],int ps[])
```

```
{
    for(int i=0;i<4;i++)
```

```

{
    int min=32767,mini=-1;
    for(int j=0;j<5;j++)
    {
        if(ps[i]<=bs[j]&&bs[j]<min)
        {
            min=bs[j];
            mini=j;
        }
    }
    if(mini==-1)
    {
        printf("No allotment of %d process\n",i);
    }
    else
    {
        printf("%d process: %d block\n",i,mini);
        bs[mini]-=ps[i];
    }
}
}

void worst_fit(int bs[],int ps[])
{
    for(int i=0;i<4;i++)
    {
        int max=-1,maxi=-1;
        for(int j=0;j<5;j++)
        {
            if(ps[i]<=bs[j]&&bs[j]>max)

```

```

        {
            max=bs[j];
            maxi=j;
        }
    }
    if(maxi==-1)
    {
        printf("No allotment of %d process\n",i);
    }
    else
    {
        printf("%d process: %d block\n",i,maxi);
        bs[maxi]-=ps[i];
    }
}
}

void main()
{
    int bs1[]={100,500,200,300,600};
    int bs2[]={100,500,200,300,600};
    int bs3[]={100,500,200,300,600};
    int ps[]={212,417,112,426};
    printf("First fit...\n");
    first_fit(bs1,ps);
    printf("Best fit...\n");
    best_fit(bs2,ps);
    printf("Worst fit...\n");
    worst_fit(bs3,ps);
}

```