Ex. No.: 10b)
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FIRST FIT

Aim:

To write a C program for implementation memory allocation methods for fixed partition using first fit.

Algorithm:

1. Define the max as 25.
2: Declare the variable frag[max],b[max],f[max],i,j,nb,nf,temp, highest=0, bf[max],ff[max]. 3: Get the number of blocks,files,size of the blocks using for loop.
4: In for loop check bf[j]!=1, if so temp=b[j]-f[i]
5: Check highest

Program Code:

```
#include<stdio.h>
#define Max 25
int main()
{  int frag[MAX], b[MAX], f[MAX], bf[MAX], ff[MAX];
   int i, j, nb, nf, temp;
   for(i=0; i<nb; i++)
   {
      scanf("%d", &b[i]);
      bf[i] = 0;
      printf("Enter the no. of files:");
      scanf("%d", &nf);
      printf("Enter the size of each files:\n");
      for(i=0; i<nf; i++);
         { printf("File %d:", i+1);
           scanf("%d", 62 &f[i]);
   }
```

```
for(i=0; i<nf; i++) {
    for(j=0; j<nb; j++)
    {
        if(bf[j] == 0 && b[j] >= f[i]) {
            ff[i] = j;
            bf[j] = 1;
            frag[i] = b[j] - f[i];
            break;
        }
    }
    if(j == nb) {
        ff[i] = -1;
    }
}
for(i=0; i<nf; i++) {
    printf("%d\t\t%d\t\t", i+1, f[i]);
    if(ff[i] != -1)
        b(ff[i], frag[i])
    else
        printf("Not allocated \n\t\t\t\t\n");
    }
}
```

Sample Output:

```
Enter the number of blocks:4
Enter the number of files:3

Enter the size of the blocks:-
Block 1:5
Block 2:8
Block 3:4
Block 4:10
Enter the size of the files:-
File 1:1
File 2:4
File 3:7

File_no:        File_size :     Block_no:       Block_size:     Fragment
1               1               1               5               4
2               4               2               8               4
3               7               4               10              3_
```

The fragment of the block are

80
15
23
5
20

ProcessNo	Process_size	Block_no	fragment
P_1	20	1	80
P_2	30	2	15
P_3	50	5	20
P_4	40	4	5
P_5	10	3	23

Result:

Using C the first fit memory allocation algorithm is implemented.