Ex. No.: 10b)
Date:

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> #include <conio.h> #define max 25

void main() { int frag[max], b[max], f[max], i, j, nb, nf, temp; static int bf[max], ff[max];

clrscr();

printf("\nEnter the number of blocks: ");
scanf("%d", &nb);

printf("Enter the number of files: ");
scanf("%d", &nf);

printf("\nEnter the size of the blocks:\n");
for (i = 1; i <= nb; i++) {
   printf("Block %d: ", i);
   scanf("%d", &b[i]);
}

printf("Enter the size of the files:\n");
for (i = 1; i <= nf; i++) {
   printf("File %d: ", i);
   scanf("%d", &f[i]);
}

for (i = 1; i <= nf; i++) {
   for (j = 1; j <= nb; j++) {
      if (bf[j] != 1) {
         temp = b[j] - f[i];
         if (temp >= 0) {
            ff[i] = j;
            frag[i] = temp;
            bf[ff[i]] = 1;
            break;
```

```
            }
        }
    }
}

printf("\nFile_no:\tFile_size:\tBlock_no:\tBlock_size:\tFragment");
for (i = 1; i <= nf; i++) {
    printf("\n%d\t\t%d\t\t%d\t\t%d\t\t%d", i, f[i], ff[i], b[ff[i]], frag[i]);
}

getch();


}
```

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_
```

Output:

```c
1  #include <stdio.h>
2  #include <conio.h>
3  #define max 25
4
5  void main() {
6      int frag[max], b[max], f[max], i, j, nb, nf, temp;
7      static int bf[max], ff[max];
8
9
10
11     printf("\nEnter the number of blocks: ");
12     scanf("%d", &nb);
13
14     printf("Enter the number of files: ");
15     scanf("%d", &nf);
16
17     printf("\nEnter the size of the blocks:\n");
18     for (i = 1; i <= nb; i++) {
19         printf("Block %d: ", i);
20         scanf("%d", &b[i]);
21     }
22
```

```
input
```

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

...Program finished with exit code 0
Press ENTER to exit console.
```

Result:
Program is successfully executed and output is verified.