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ROLL NUMBER- 2023030

STUDENT ID- 20422001

SUBJECT- OPERATING SYSTEM

COURSE- BSC-IT

SECTION- 'B'

CAMPUS- DEHRADOON

SEMESTER- 2

Signature Anisha
27/08/21.

Q.1. #include <stdio.h>

int main()

{

printf("\n\t\t\t\t\tMemory Management " "- Worst Fit");

int i, j, nblocks, nfiles, temp, top = 0;

int frag[10], blocks[10], files[10];

static int block_arr[10], file_arr[10];

printf("\nEnter the Total Number " "of Blocks:");

scanf("%d", &nblocks);

printf("Enter the total number " "of files:");

scanf("%d", &nfiles);

printf("\nEnter the size of the " "Blocks:");

for(i = 0; i < nblocks; i++)

{ printf("Block No. %d: ", i+1);

scanf("%d", &blocks[i]);

}

printf("Enter the size of the Files:");

for(i = 0; i < nfiles; i++)

{

printf("File No. %d: ", i+1);

scanf("%d", &files[i]);

}

for(i = 0; i < nfiles; i++)

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

{

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COURSE - BSC-IT

SECTION - B.

```
if (block_arr[j] != 1)
{
    temp = blocks[j] - files[i];
    if (temp >= 0)
    {
        if (top < temp)
        {
            file_arr[i] = j;
            top = temp;
        }
    }
    frag[i] = top;
    block_arr[file_arr[i]] = 1;
    top = 0;
} }

printf("\n File Number | File Size | " " Block Number | Block
      Size | Fragment");
for (i = 0; i < nfiles; i++)
{
    printf("\n %d | %d | %d | %d | %d", i, files[i],
        file_arr[i], blocks[file_arr[i]], frag[i]);
}
printf("\n");
return 0;
}
```

worst fit.c - Code::Blocks 20.03

File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

<global>

Management

Projects Files FSymbols

Workspace

```
Memory Management - Worst Fit
Enter the Total Number of Blocks: 3
Enter the Total Number of Files: 2

Enter the Size of the Blocks:
Block No.1: 5
Block No.2: 2
Block No.3: 7
Enter the Size of the Files:
File No.1: 1
File No.2: 4

File Number   File Size   Block Number   Block Size   Fragment
0             1           2             7           6
1             4           0             5           0

Process returned 0 (0x0)   execution time : 31.724 s
Press any key to continue.
```

C:\Users\hpl\Documents\worst fit.c

C/C++

Windows (CR+LF)

WINDOWS-1252

Line 1, Col 9, Pos 8

Insert

Read/Write - default