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Section: - B

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Subject Code: - PBI-202

Q 1.

Algorithm

Step 1: - Start

Step 2: - Input memory blocks & process with sizes.

Step 3: - Initialize all memory blocks as free

Step 4: - Start by picking each process and find the maximum block size that can be assigned to current process i.e., find $\max(\text{block size}[1], \text{block size}[2], \dots, \text{block size}[n]) > \text{process size}[\text{current}]$, if found then assign it to be the current process.

Step 5: - If not then leave that process and keep checking the further process

Step 6: - Stop

Coding

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

```
{
int frag[max], b[max], i, j, nb, nf, temp, high=0;
static int lf[max], ff[max];
clrscr();
```

```
printf("In Memory Management Scheme - Worst  
Fit");
```

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

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

```
printf("Enter 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++)
```



```

{
    for (if (bf[i] = 1) // if bf[i] is not allocated
    {
        temp = b[i] - f[i];
        if (temp > 0)
        {
            if (high < temp)
            {
                ff[i] = j;
                high = temp;
            }
        }
        frag[i] = high;
        bf[ff[i]] = 1;
        high = 0;
    }
    printf("\n File - no, \ File - size, \ + Block no, \ + Block - size, \ + Fragement");
    for (i = 1; i <= n; i++)
    {
        printf("\n %d \ + %d \ + %d \ + %d \ + %d",
            i, f[i], ff[i], b[ff[i]], frag[i]);
        getch();
    }
}

```

Output

Enter the no. of ~~block~~ blocks: 3

Enter the no of files: 2

Enter the size of the blocks: -

Block 1: 5
 Block 2: 2
 Block 3: 7

Enter the size of the files: -

File 1: 1

File 2: 4

File - no.	File - size	Block - no.	Block - size	File
1	1	1	5	4
2	4	3	7	5

```
Memory Management Scheme - First Fit
Enter the number of blocks:3
Enter the number of files:2

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

File_no:      File_size :      Block_no:      Block_size:      Fragement
1             1             1             5             4
2             4             3             7             3

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