OPERATING SYSTEM - CS23431

EXP 10

BEST FIT

NAME: S.KUMARAN **ROLL NO: 230701159**

PROGRAM(PYTHON):

```
n1 = int(input("Enter number of memory blocks: "))
memory_block = [0] * n1

print("Enter values for memory blocks:")
for i in range(n1):
    memory_block[i] = int(input())

n2 = int(input("Enter number of process blocks: "))
process_block = [0] * n2

print("Enter values for process blocks:")
for i in range(n2):
    process_block[i] = int(input())

alloc = [-1] * n2  # -1 means not allocated

for i in range(n2):
    bestfit_ind = -1
    minrem_memory = float('inf')
    for j in range(n1):
        if memory_block[j] >= process_block[i]:
            rem_memory = memory_block[j] - process_block[i]
            if rem_memory < minrem_memory:
                minrem_memory = rem_memory
                bestfit_ind = j
    if bestfit_ind != -1:
        alloc[i] = bestfit_ind
        memory_block[bestfit_ind] -= process_block[i]

print("\nProcess No.\tProcess Size\tBlock No.")
for i in range(n2):
    print(f"{i+1}\t\t{process_block[i]}\t\t", end="")
    if alloc[i] != -1:
```

```
        print(alloc[i]+1)
    else:
        print("Not Allocated")
```

OUTPUT: