Experiment no : 10

Program :

```
#include <stdio.h>

int main() {
   int fragment[20], b[20], p[20], i, j, nb, np, temp, lowest = 9999;
   static int barray[20], parray[20];

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

   printf("\nEnter the size of blocks: \n");
   for (i = 0; i < nb; i++) {
      printf("Block no %d: ", i + 1);
      scanf("%d", &b[i]);
   }

   printf("\nEnter the size of processes: \n");
   for (i = 0; i < np; i++) {
      printf("Process no %d: ", i + 1);
      scanf("%d", &p[i]);
   }

   for (i = 0; i < np; i++) {
      for (j = 0; j < nb; j++) {
         if (barray[j] != 1) {
            temp = b[j] - p[i];
            if (temp >= 0) {
               if (lowest > temp) {
                  parray[i] = j;
                  lowest = temp;
               }
            }
         }
      }
```

```
      fragment[i] = lowest;
      barray[parray[i]] = 1;
      lowest = 10000;
   }

   printf("\nProcess_no\tProcess_size\tBlock_no\tBlock_size\tFragment\
n");
   for (i = 0; i < np; i++) {
      printf("%d\t\t%d\t\t%d\t\t%d\t\t%d\n", i + 1, p[i], parray[i] + 1,
b[parray[i]], fragment[i]);
   }

   printf("\n");
   return 0;
}
```

Output :

```
Enter the number of blocks: 4
Enter the number of processes: 2

Enter the size of blocks:
Block no 1: 2
Block no 2: 3
Block no 3: 4
Block no 4: 5

Enter the size of processes:
Process no 1: 1
Process no 2: 2

Process_no      Process_size    Block_no        Block_size      Fragment
1               1               1               2               1
2               2               2               3               1
```