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 Course - BSC IT-2A
 Subject - Operating System Practical (Mid term)

Q2.) #include <stdio.h>

int main()

{
 int bt[20], p[20], wt[20], tat[20], i, j, n, total = 0,
 pos, temp;

float avg_wt, avg_tat;
 printf("Enter number of process: ");

scanf("%d", &n);
 printf("\nEnter Burst Time: \n");

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

{
 printf("p%d: ", i+1);
 scanf("%d", &bt[i]);
 p[i] = i+1;

}
 for (i = 0; i < n; i++)

{
 pos = i;
 for (j = i+1; j < n; j++)

{
 if (bt[j] < bt[pos])
 pos = j;

}
 temp = bt[i];
 bt[i] = bt[pos];
 bt[pos] = temp;

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temp = p[i];

p[i] = p[pos];

p[pos] = temp;

}

wt[0] = 0;

for (i = 1; i < n; i++)

{

wt[i] = 0;

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

wt[i] += bt[j];

total += wt[i];

}

avg-wt = (float) total / n;

total = 0;

printf("\n Process \t Burst Time \t waiting time \t
Turnaround Time");

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

{

tat[i] = bt[i] + wt[i];

total += tat[i];

printf("\n p \t d \t t \t w \t tat \t",
p[i], bt[i], wt[i], tat[i]);

}

avg-tat = (float) total / n;

printf("\n\n Average waiting Time = %.2f", avg-wt);

printf("\n\n Average Turnaround Time = %.2f\n",
avg-tat);

}

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Output:

Enter number of process:

Enter Burst Time:

p1: p2: p3: p4:

process	Burst Time	waiting Time	Turnaround Time
p3	1	0	1
p2	2	1	3
p4	4	3	7
p1	10	7	17

Average waiting Time = 2.750000
 Average Turnaround Time = 7.000000

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