Sem → 2
Paper TYPE → Regular
Paper Name → operating System Lab
Paper Code → PBI202
Section → 'A'
Course → BSc (IT)

Name → Shivani Negi
father's name → Manohar Singh Negi
Rollno → 2023099
Student I'd → 20052026
Campus → Dehradun

Q1) (Q.No.) Source Code

Tieu - - - - - - average waiting time.

```
# include <stdio.h>
# define MAX 30
int Main ()
{ int i, j, n, t, p[MAX], bt[MAX], wt[MAX], tat[MAX];
   float awt = 0, atat = 0;
 Printf(" Enter the number of process\n");
 Scanf("%d", &n);
 printf(" Enter the processes number \n");
 for(i=0; i<n; i++)
 { scanf("%d", &p[i]);
 }
 Printf("Enter the burst time of the process \n");
   for(i=0; i<n; i++)
   { Scanf("%d", &bt[i]);
```

Shivani 22/06/2021

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Name → Shivani Negi
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Roll no → 2002309
Student I'd → 20052026
Campus → Dehradun

```
for (i=0; i<n; i++)
{
    for (j=0; j<n-i-1; j++)
    {
        if (bt[j] > bt[j+1])
        {
            t = bt[j];
            bt[j] = bt[j+1];
            bt[j+1] = t;
            t = p[j];
            p[j] = p[j+1];
            p[j+1] = t;
        }
    }
}
Printf("Process \t Burst time \t Waiting time \t Turnaround time\n");
for (i=0; i<n; i++)
{
    wt[i] = 0;
    tat[i] = 0;
for (i=0; j<1; j++)
{
```

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Name → Shivani Negi

father's name → Manohar Singh Negi

Roll no → 2023099

Student I'd → 2005202

Campus → Dehradu

```
y.)
        wt[i] = 0;
        tat[i] = 0;
    for (j=0; j<i; j++)
    {   wt[i] = wt[i] + bt[j]; }
        tatt[i] = wt[i] + bt[i];
        awt = awt + wt[i];
        atat = atat + tat[i];
    printf("%d\t%d\t\t%d\t\t%d\n", p[i],
            bt[i], wt[i], tat[i]);
    }
    return 0;
}
```

Since SJF Provide minimum average waiting time.

Shivani 22/06/2021

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Name → Shivani Negi
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Roll no → 2023099
Student I'd → 20052026
Campus → Dehradun
Roll no → 2023099

1.) #include <stdio.h>
2.) #define MAX 30
int main ()
{ int i, j, n, t, p[MAX], bt[MAX], wt[MAX], tat[MAX
float awt=0, atat=0;
printf("Enter the number of process \n");
scanf("%d", &n);
printf("Enter the process number \n");
for(i=0; i<n; i++)
{ scanf("%d", &p[i]);
}
printf("Enter the burst time of the process \n");
for(i=0; i<n; i++)
scanf("%d", &bt[i]);
for(i=0; i<n; i++)
{ for(j=0; j<n-1; j++)
{

Shivani 22/06/2024

Sem → 2
Paper TYPE → Regular
Paper Name → Operating System Lab
Paper Code → PBI 202
Section → 'A'
Course → BSC (IT)

Name → Shivani Negi
Father's name → Manohar Singh Negi
Rollno → 2023099
Student I'd → 20052026
Campus → Dehradun

Q2.)
```
if (bt [J]> (bt [J+1]
{   t= bt[J];
   bt[J] = bt[J+1];
   bt[J+1] = t;
   t = p[J];
   p[J]= p[J+1];
   p[J+1]= t;
  }
 }
}
printf("Proces\t Burst time \t waiting time \t Turnaround
   time (\n");
for (i=0; i<n; i++)
 { wt[i] = 0;
   tat[i] = 0;
 for (J=0; J<1; J++)
 {
```

Shivani
22/05/2021

Sem → 2
Paper TYPE → Regular
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Paper Code → PBI 202
Section → 'A'
Course → Bsc (IT)

Name → Shivani Negi
Father's NAME → Manohar Singh Negi
Roll no → 2023091
Student Id → 20052026
Campus → Dehradon

(20)

```
    wt[i] = wt[i] + bt[j];
}
    tat[i] = wt[i] + bt[i];
    awt = awt + wt[i];
    atat = atat + tat[i];
printf("%d %d %d %d %d\n", p[i], bt[i], wt[i], tat[i]);
}
```