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Section – 'A'
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Semester – 2nd
Subject – PBI-202

Ans⇒②
```c
#include<stdio.h>
#include<conio.h>
#include<string.h>
int main()
{
int et[20], at[10], n, i, j, temp, st[10], ft[10], wt[10], ta[10];
int totwt=0, totta=0;
float awt, ata;
char pn[10][10], t[10];
printf("Enter the number of process:");
scanf("%d", &n);
for(i=0; i<n; i++)
{
    printf("Enter process name, arrival time & execution time:");
    scanf("%s %d %d", pn[i], &at[i], &et[i]);
}
```

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```
for (i=0; i<n; i++)
for (j=0; j<n; j++)
{
if (et [i] < et [j])
{
temp = at [i];
at [i] = at [j];
at [j] = temp;
temp = et [i];
et [i] = et [j];
et [j] = temp;
strcpy (t, pn[i]);
strcpy (pn[i], pn[j]);
strcpy (pn[j], t);
}
}
for (i=0; i<n; i++)
{
if (i==0)
st [i] = at [i];
else
st [i] = ft [i-1];
wt [i] = st [i] - at [i];
```

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```
ft[i]=st[i]+et[i];
ta[i]=ft[i]-at[i];
totwt += wt[i];
totta += ta[i];
}
awt = (float) totwt/n;
ata = (float) totta/n;
printf("\n Pname | tarrival time | texecution time | twaiting
           time | tta time");
for(i=0;i<n;i++)
printf("\n %s | t %5d | t | t %5d | t | t % 5d | t | t %5d ",
         pn[i],at[i],et[i],wt[i],ta[i];
printf("\n Average waiting time is : %f",awt);
printf("\n Average turnaroundtime is : %f",ata);
    getch();
}
```

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C:\Users\ASHISH PANWAR\Documents\20program.exe

```
Enter the number of process:4
Enter process name, arrival time& execution time:p1 0 10
Enter process name, arrival time& execution time:p2 0 2
Enter process name, arrival time& execution time:p3 0 1
Enter process name, arrival time& execution time:p4 0 4

Pname      arrivaltime      executiontime      waitingtime      tatime
p3             0                 1                  0               1
p2             0                 2                  1               3
p4             0                 4                  3               7
p1             0                10                  7              17
Average waiting time is:2.750000
Average turnaroundtime is:7.000000
```