## LAB 2

Write a C program to simulate the following CPU scheduling algorithm to find turnaround time and waiting time.

Priority (pre-emptive or Non-pre-emptive)

Round Robin (Experiment with different quantum sizes for RR algorithm)

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#indude (5) dio. 44 09 09 09 09	5
# include & conto. hy	
	2
int main () {	
int mi, bu[10), wa [10], tat[10], t, ct[10], at[10]	100
mex;	
float aut = 0, att = 0, timp = 0:	
pount ("Enter the number of number").	
Seen (°1,d°, an);	
for (i=orich,i++) 4	
print ("Enter amin) to a six	
scan ("1.d", gat [i);	
point (Enter hunt 1= 0	
Scar (".d", 3, bt [D); p[.t.d); "1+1);	
paint ( Eath painting of pl(d): ";+1)	
Scan ( . I.d' syrical (i) Plad: i+1)	
	1
for (1=0; i <n-1; 4<="" i++)="" td=""><td></td></n-1;>	
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1 (pricont [i] > pricont [i]	
priority []= priority []+1) {  priority []= priority []+1);  priority []=1]= trap	
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ranound	temp = bt[]; bt[]=bt[]=D;
	bt [ji) = temp;
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Strong Street	atti)= atti);
· · ·	late in a chief in a late of the state of th
	at (j+i)= temp;
	5 Carrier marker persons C
	7
109	lor (i=0; i <n; i+1)="" th="" {<=""></n;>
	wt[i]= sum-at[i];
akno	tut[i] = wt[i] + bt[i]:
at (Is)	point ("oldin" ot (i))
	august += wt[i];  august += dat[i];
	avgitat ( da [1])
	gum += bt[i]   a   bassas ata   bassas
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#include Kstdio. LY	
#include (sonio. h)	
Rt main() s	-
Put n,i, bt[20], poinsuity [20), at [20), j, timp, wit [2)	
tat (20), sum=0, avgust=0, augtat=0;	
perial ("Enter number of processon: ");	
scarf (".l.d" 8n);	
En line was the line of the li	-01
for (i=0: i <n; i+1)="" td="" }<=""><td></td></n;>	
pounts ("Enter arrival line for p[1.d]? " (+1))	
Scar (".1.d" gat [1]);	
print ("Exter burst time for p[1]d):", i+1); scan ("-bd", qbt [i));	
point ("Enter powart of 514d) v = 1)	
point ("Enter gowoult of ploted): ", 1+1).  scan ("old" & puroulty (i))	
3	
for (1=0; i <n-1; i++)="" td="" {<=""><td></td></n-1;>	
for (j=0; j <n-1-1; j++)="" td="" {<=""><td></td></n-1-1;>	
1 (porio ail-[1] > porposite [i + 1)	
(1 (periosily [j] > periosily [j+1]) {  temp = periosily [j] ;  percosily [j] = periosily [j+1];	
percoachy (1) = percounty (1 +1).	-
perisonty [j+1] temp;	-
temp=bt[j]:	
bt[j]= bt[j+1];	
bt[j+1] = ting;	-
temp =at (D);	
arti)= at [j+i);	
at (j+1)= temp;	

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		(ut[i] = sum-at[i])
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20014	with L	- U ("./d \0" wt [i));
wt les		august + = wt[i];
		avglat += wt[i);  avglat += tat[i);
		sum += bt [D]
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		getum 0; and and more must
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	i i	) Risi of 6 7 6
		Enter the number of processor 3
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1		P[i]: arrival time: 1
		bust time: 1
		P[i]: amual time: [ (2) 3
		Phy: amual time: 1  house time: 6
	f	purat time: 1  P[i]: arrival time: 5  burst time: 6  P[s): assiral time: 4
	· f	ply: amuel time to (2) 29  burst time: 6  P(b): assimplifying: 4  burst time: 2
	· c	P[i]: amuel time: 5  burst time: 6  P[b]: assiral time: 4  burst time: 2
	f	ply: amuel time to (2) 29  burst time: 6  P(b): assimplifying: 4  burst time: 2
	6	P[i]: amuel time: 5  burst time: 6  P[b]: assiral time: 4  burst time: 2
	f	bush time: 1  P[i]: amual time: 5  bush time: 6  P[b]: assiral time: 4  bush time: 2  time slice: 2
		bush time: 1  P[i]: amual time: 5  bush time: 6  P[b]: assiral time: 4  bush time: 2  time slice: 2
	f	bush time: 1  P[i]: amual time: 5  bush time: 6  P[b]: assiral time: 4  bush time: 2  time slice: 2

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## PRIORITY OUTPUT:

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PS D:\VS Code\OS> cd "d:\VS Code\OS\"; if ($?) { gcc npp.c -o npp }; if ($?) { .\npp }
Enter number of processes

4
Enter araival times:
0 1 2 3
Enter process times:
4 3 3 5
Enter priority:
3 4 6 5
0 p1 4 p3 7 p4 12 p2 15
P1 4 0
P2 14 11
P3 5 2
P4 9 4
ATI=8.000000
AVI=4.2500000
PS D:\VS Code\OS> ■
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## **ROUND ROBIN OUTPUT:**

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PROBLEMS OUTPUT DEBUGCONSOLE TERMINAL

PS D:\VS Code > cd "d:\VS Code\OS\" ; if ($?) { gcc RR1.c -0 RR1 } ; if ($?) { .\RR1 } Enter number or processes

5
Enter anaival times:
0 1 2 3 4
Enter process times:
5 3 1 2 3
Enter TQ
2
0 P1 2 P3 3 P1 5 P2 7 P4 9 P5 11 P1 12 P2 13 P5 14
P1 12 7
P2 12 9
P3 1 0
P4 6 4
P5 10 7
ATAT=8,2000000
AWT=5.4000000
PS D:\VS Code\OS\>
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