Page 22 write a c program to simulate multi-level queue scheduling algorithm cons. senario -> All processes are divided into algorithm cons. Server of more priority than UP. Use fors. #indude /stdio.n> int spat [10], upat [10], i, n1, n2, p1, [10], p2[10]: int sppt [10], uppt [10], time=0, op=0, y, x, Pt; int sptat [10], uptat [10]; 0-(8)-0 int sput [10], upwt [10]; 1 [N]9 [5]9 float spatat = 0, spawt = 0; float upa tat = 0, upawt=0; -= + void process (inta, intissystem) & (1) ++++ Pf lisSystem) \$ Op + = sppt [m]; Splat [m] = op - spat [m]; S Sppt [m] = 0; Spwt[m] = sptat[m] - pi[m]; Spatat+ = sptat(m); Spawt + = spwt[m]; 20.1 3elses AWT = A125 op + = uppt[m]; uptat [n]=op-upat[n]; 0=Cm] tagu upwtlm] = uptat[m]-p2[n]; upatat 7 = uptat [n]; upawt += upwtlm); int main() \$ Print f " Enter the number of System Processes:"); Scanf (" y. d", & ni); Print i l'Enter the number of user processes: "); scant ("1.d", \$ n2); Print & 1" Enter the arrival times for system Processes: " for (1=0; 1<n1; 1++)

scanfl" 1.d", &spat (i); print + ("Enter the process times for system Processes: \r) Scanf (" 1.d", & sppt [i]); Printf (" Enter the arrival times for user processes: n"); for (1 =0; 1 < n2; i ++) 'Scant ("">d", & upat [i)); Printf I" Enter the process times for user processes: \n"); for (1=0, 1<02; 1++); Scanf (" ".d", Luppt (1)); for (1=0; 1 < n1; i++) time + = sppt(i); for 11:0, 12/2, P++) time t = uppt (i); for (i=0; i<n; 1++) Cistads : Cista for (i=0; i < n2; ++); P2 (i)= uppt (i); Print + ("\n"); While (OP < hime) & X = -1 for 11 =0; ic ni; it+) Community Tout I + young 1 - 10p>= Spa+ [i] && sppt [i] !=0)\$ 4=13 break; for (i=0; i< n2; i+t) \$ if lop > up at [?) A& uppt [1] 1=0) \$ X = 1: break; COICH the project hines for system houseses

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if (41=-1) Printf 1" 1.d sp 1.d", op, y+1); Process (y.1); 3 elese if (x) = -1) & loving and Print + 1"1.1.0 UP.1.0", OP, x+1); Process (Z, D); Cill toque. Belse & roll of the more some set with it to it Printf ("%d")op); Print - ("\n"); (TTY on 21:02:1170) Print + 1" System Processes: \n") 3) togg = + want for (1=0; 1< n); 1++) (++) (++) Print+ ("SP/d/d/d/n", i+1, splat (i), spwt(i)); Print - 1"ATAT (system Processes):1/2 (10", spatat | 04); Print! ("\n"); Print + ("User Processes: \p"); for (1=0;1<p2;1++) 3 (min = 901 - sije u Print + 1" UP /· axd xd \n", i+1, uptat (i), upwt(i); Print + ("ATAT (user Processes): 1.2 1/2", upatat / 12); Print + ("AWT (user Processes): 1.2 1/2", upawt / 12); return 0;0 (1) Output Enter the number of system Processes: 3
Enter the number of user Processes: 2 Enter the arrival times for System Processes. Enter the process homes for system Processes:

5 9 Enter the arrival times for user Processes: 0 5 Enter the process times for user processes 4 0 UPL 6 SPL 11 SP2 19 SP3 28 UP2 32 SPJ 10 5 SP2 15 7 SP3 26 17 ATAT (system Processes): 17,00 AWT (system Processes): 9.67 USET Processes: UP1 6 0 UP2 27 23 ATAT (user Processes): 16.50 AW7 lucer Processes): 11.50.

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Enter the number of User Processes: 2
Enter the arrival times for System Processes:
Enter the process times for System Processes:
5
8
9
Enter the arrival times for User Processes:
0
Enter the process times for User Processes:
4
0 UP1 6 SP1 11 SP2 19 SP3 28 UP2 32
System Processes:
SP1 10 5
SP2 15 7
SP3 26 17
ATAT(System Processes): 17.00
AWT (System Processes): 9.67
User Processes:
UP1 6 0
UP2 27 23
ATAT(User Processes): 16.50
AWT (User Processes): 11.50
```

Enter the number of System Processes: 3