OPERATING SYSTEMS

UNIT 2

PROCESS MANAGEMENT

Exercises

1. We have to perform the following tasks:

- *Indicate wait and return times for this scheduling policies:*
  - a) *FIFO non preemptive*
  - b) *Round Robin with a quantum of 2 time units*

If in the same instant of time a process leaves the CPU and another one is created the one that have left the processor enters first to the ready queue.

Jobs	Arrival time	Processor time
A	0	9
B	1	2
C	2	3
D	3	1
E	4	5

2. We have to perform the following tasks:

Indicate wait and return times for this scheduling policies:

a) *Non preemptive priorities combined with round robin with a quantum of 2 time units*

A bigger priority number indicates a higher priority.

Processes	Proc. time	Priority
A	8	2
B	5	4
C	2	2
D	7	3

Exercises

- **3. Compute the wait and return time for the policies:**

  a) Preemptive priority

  b) *Preemptive priority and 2 time units quantum*

  A bigger priority number indicates a higher priority

Process	Arrival time	Proc. Time	Priority
A	0	5	3
B	2	3	6
C	3	4	5
D	7	7	7
E	6	4	7

Solutions

1.a: FIFO non preemptive

Proc.	Ret. Time	Wai. Time
A	9	0
B	10	8
C	12	9
D	12	11
E	16	11

1. b: Round Robin with a quantum of 2 time units

Proc.	Ret. Time	Wai. Time
A	20	11
B	3	1
C	12	9
D	6	5
E	15	10

Solutions

2.a Non preemptive priorities combined with round robin with a quantum of 2 time units

Proc.	Ret. Time	Wai. Time
A	22	14
B	5	0
C	14	16
D	5	12

3.a Preemptive priority

Proc.	Ret. Time	Wai. Time
A	23	18
B	3	0
C	17	13
D	10	3
E	4	0

3.b Preemptive priority and 2 time units quantum

Proc.	Ret. Time	Wai. Time
A	23	18
B	3	0
C	17	13
D	10	3
E	6	2