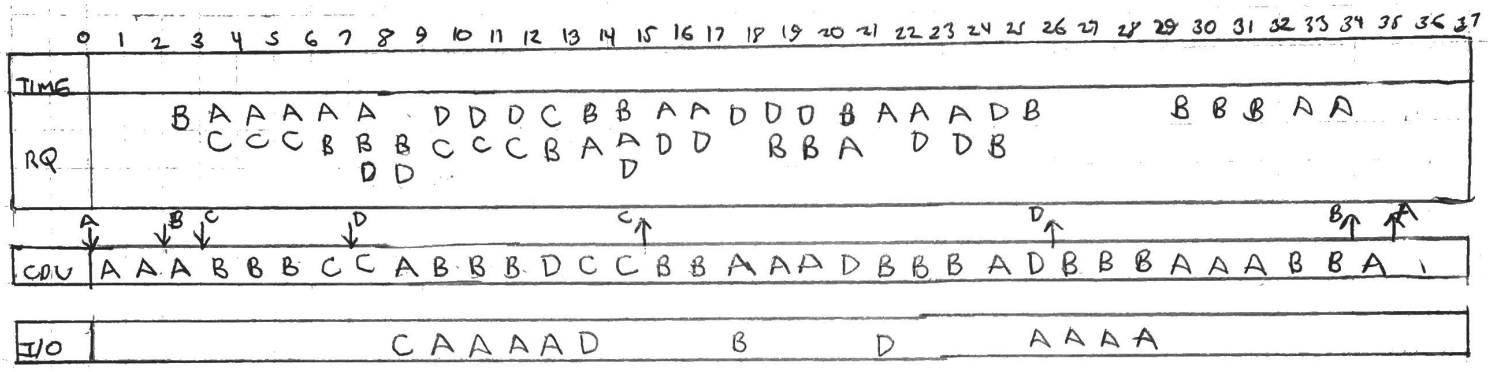
ROUND ROBIN (RR) - NON-PRE-EMPTIVE

** BY USING ROUND ROBIN THROUGH THE READY-QUEUE
** CPU UTILIZATION IS USE FOR MAXIMUM OF QUANTUM TIME

PROCESS	ARRIVAL TIME	$EXEC_1$	I/O_1	$EXEC_2$	I/O_2	$EXEC_3$
A	0 ✓	4 ✓	4 ✓	4 ✓	4 ✓	4
B	2 ✓	8 ✓	1 ✓	8	/	/
C	3 ✓	2 ✓	1 ✓	2 ✓	/	/
D	7 ✓	1 ✓	1 ✓	1 ✓	1 ✓	1 ✓

QUANTUM = 3



CPU UTILIZATION = $\frac{35}{35} = 100\%$

THROUGHPUT = $\frac{4}{35} = 0.11$

$TAT_A = 35 - 0 = 35$

$TAT_B = 34 - 2 = 32$

$TAT_C = 15 - 3 = 12$

$TAT_D = 26 - 7 = 19$

$TAT_{AVERAGE} = \frac{35 + 32 + 12 + 19}{4} = \frac{98}{4} = 24.5$

$RESPONSE\ TIME_A = 0$

$RESPONSE\ TIME_B = 1$

$RESPONSE\ TIME_C = 3$

$RESPONSE\ TIME_D = 5$

$RESPONSE\ TIME\ AVERAGE = \frac{0+1+3+5}{4} = \frac{9}{4} = 2.25$

$WAIT\ TIME_A = 5 + 4 + 4 + 2 = 15$

$WAIT\ TIME_B = 1 + 3 + 3 + 3 + 2 + 3 = 15$

$WAIT\ TIME_C = 3 + 4 = 7$

$WAIT\ TIME_D = 5 + 6 + 3 = 14$