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Class = BSE(4B)  
Course = Operating System  
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Task No: 01

Step 01:

$A = 100\text{ ms}$  ,  $B = 120\text{ ms}$  ,  $C = 60\text{ ms}$

C	B	A
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 $\rightarrow$ 

Processor
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 $\rightarrow$ 

Processor
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 $\rightarrow$ 

Processor
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Step 02:

$A = 90\text{ ms}$  ;  $B = 120\text{ ms}$  ;  $C = 60\text{ ms}$

	C	B
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 $\xrightarrow{B}$ 

Processor
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		A
--	--	---

 $\xrightarrow{A}$ 

Processor
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Step 03:

$A = 70\text{ ms}$  ,  $B = 110\text{ ms}$  ,  $C = 60\text{ ms}$

		C
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 $\xrightarrow{C}$ 

Processor
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		B
--	--	---

 $\xrightarrow{B}$ 

Processor
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		A
--	--	---

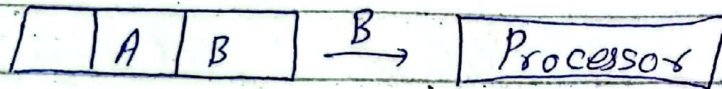
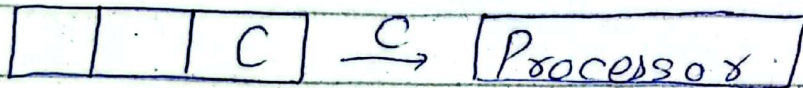
 $\xrightarrow{A}$ 

Processor
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Step 04:

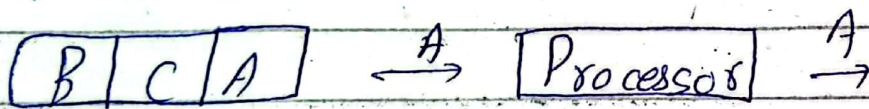
Since, there is no processing in RQ0, no need to draw RQ0, from next steps

$A = 30\text{ ms}$  ,  $B = 90\text{ ms}$  ,  $C = 50\text{ ms}$



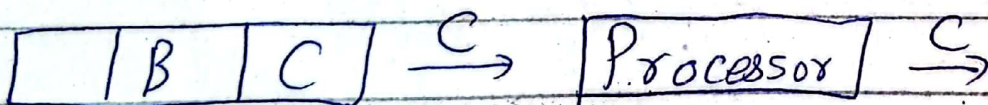
Step 05:

Since, there is no more processing in RQ1, so no need to draw RQ1 from now on ( $A = 30\text{ ms}$ ,  $B = 50\text{ ms}$ ,  $C = 30\text{ ms}$ )



Step 06:

$B = 50\text{ ms}$  ,  $C = 30\text{ ms}$



Step 07:

$B = 50\text{ ms}$





Process Arrival Burst Finish T.T <sup>Waiting</sup> ~~Wait~~ N.T.T ( $T_s/T_b$ )

## Task 02

T.T = Turnaround Time  $\Rightarrow T_T = T_F - T_A$

N.T.T = Normalized Turnaround Time  $= T_w + T_s / T_s$

Process	Arrival	Burst	Finish	T.T $T_F - T_A$	Waiting $T_F - T_B$	N.T.T $T_w + T_s / T_s$
A	0ms	100ms	140ms	140	40ms	1.4
B	0ms	120ms	210ms	210	90ms	1.75
C	0ms	60ms	120ms	120	60ms	2

## Task 03

According to the above, this scheduling technique gives best outcome when the process have shorter Burst time b/c when there is a process of longer burst time. It can go to starvation as it go through multiple queues until its processing finish. Normalized turnaround time is long larger for shorter process while shorter for longer processor.