

Exam Review

1 Memory Management

Example: Given the following dynamic partitioning scheme, determine which blocks will be used for memory allocation when three memory requests are made for 40M, 20M, and 10M. The gray shaded blocks are already occupied. Use the following policies

1. First Fit
2. Best Fit
3. Next Fit (Assume the most recently added block is at the beginning of memory)
4. Worst Fit

20M	20M	40M	60M	20M	10M	60M	40M	20M	30M	40M	40M

2 Processor Scheduling

Example: Determine the processor scheduling times of the following policies:

1. First Come First Serve
2. Round Robin ($q = 1$)
3. Round Robin ($q = 4$)

Process Number	Arrival Time	Service Time
1	0	6
2	1	2
3	4	5
4	5	7

Process Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1																				
2																				
3																				
4																				
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3																				
4																				

1. First Come First Serve
2. Round Robin ($q = 1$)
3. Round Robin ($q = 4$)
4. Shortest Process Next
5. Shortest Remaining Time
6. Highest Response Ratio Next (Response Ratio = $\frac{\text{wait time} + \text{service time}}{\text{service time}}$)
7. Feedback ($q = 1$)
8. Feedback ($q = 2^i$)

Process Name	Arrival Time	Service Time
1	0	3
2	1	5
3	3	2
4	9	5
5	12	5

Process Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1																				
2																				
3																				
4																				
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Process Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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