Quiz3

Due No due date   **Points** 1.6   **Questions** 5
Available Nov 13 at 2pm - Nov 13 at 2:30pm 30 minutes   **Time Limit** 30 Minutes

Attempt History

	Attempt	Time	Score
LATEST	**Attempt 1**	18 minutes	1.56 out of 1.6

Score for this quiz: **1.56** out of 1.6
Submitted Nov 13 at 2:20pm
This attempt took 18 minutes.

Question 1   0.15 / 0.15 pts

Given *N*, the number of tasks that are either waiting in the queue or being processed by the CPU, arrival rate Y, and response time R, what is the relationship between N, Y, R in a stable system?

○ N=Y+R

Correct!   ⦿ N=YR

○ N=YR^2

○ N=Y/R

Question 2   0.15 / 0.15 pts

Given 60% utilization, the ratio of response time R and execution time S is:

○ 1.25

Correct!

◉ 2.5

○ 1.67

○ 1.33

Question 3   0.96 / 1 pts

Given three tasks A, B, C with service time of 6ms, 4ms, and 4ms, respectively. Assume that all three tasks arrive all at the same time but A comes slightly before B and B comes slightly before C. Please show the detailed schedule for the following algorithms. Then, calculate the average response time for the following:

- FIFO: the order of scheduling is [A] - [B]

  - [C] with response time of [6] ms,

  [10] ms, and [14] ms, respectively.

- SJF: the order of scheduling is [B] - [C] -

  [A] with response time of [4] ms,

  [8] ms, and [12] ms, respectively.

- Round robin with time slice of 4ms: the response time of A, B, C are

  [14] ms, [8] ms, and [12]

  ms, respectively.

- LIFO: the order of scheduling is [C] - [B]

  - [A] with response time of [4] ms,

  [8] ms, and [14] ms, respectively.

- Round robin with time slice of 1ms: the response time of A, B, C are

  14   ms,   11   ms, and   12

  ms, respectively.

Answer 1:

Correct!   A

Answer 2:

Correct!   B

Answer 3:

Correct!   C

Answer 4:

Correct!   6

Answer 5:

Correct!   10

Answer 6:

Correct!   14

Answer 7:

Correct!   B

Answer 8:

Correct!   C

Answer 9:

Correct!   A

Answer 10:

Correct!   4

Answer 11:

Correct!   8

Answer 12:

ou Answered

12

orrect Answer   14

Answer 13:

Correct!   14

Answer 14:

Correct!   8

Answer 15:

Correct!   12

Answer 16:

Correct!   C

Answer 17:

Correct!   B

Answer 18:

Correct!   A

Answer 19:

Correct!   4

Answer 20:

Correct!   8

Answer 21:

Correct!   14

Answer 22:

Correct!   14

Answer 23:

Correct!   11

Answer 24:

Correct!

    12

Question 4   0.15 / 0.15 pts

Which memory address translation strategy is used as the lowest level of all multi-level address translation systems?

○ segmentation

○ static base+bound

Correct!

◉ paging

○ swapping

Question 5   0.15 / 0.15 pts

Which of the following strategy causes internal fragmentation?

◉ paging

Correct!

○ segmentation

○ memory bitmap

○ caching

Quiz Score: **1.56** out of 1.6