

Started on Tuesday, 26 July 2022, 11:00 AM

State Finished

Completed on Tuesday, 26 July 2022, 11:07 AM

Time taken 7 mins 13 secs

Grade 30.00 out of 30.00 (100%)

Information

The theory part of this exam uses free navigation when presenting the questions.

Information

SECTION 1. True or False questions (2 points each)

Question **1**

Correct

Mark 2.00 out of 2.00

A physical or absolute address represents an actual location in main memory.

Select one:

☒ True ✓

☐ False

Question **2**

Correct

Mark 2.00 out of 2.00

The best-fit placement algorithm (dynamic partitioning), chooses the block that is closest in size to the request.

Select one:

☒ True ✓

☐ False

Question **3**

Correct

Mark 2.00 out of 2.00

Thrashing is a state in which the system spends most of its time swapping process pieces rather than executing instructions.

Select one:

- ☒ True ✓
- ☐ False

Question **4**

Correct

Mark 2.00 out of 2.00

The priority inversion problem occurs when a low priority task waits for a high priority task.

Select one:

- ☐ True
- ☒ False ✓

Question **5**

Correct

Mark 2.00 out of 2.00

C-SCAN (disk scheduling algorithm) restricts the scanning of the tasks to one direction only

Select one:

- ☒ True ✓
- ☐ False

Question **6**

Correct

Mark 2.00 out of 2.00

Device drivers communicate directly with the user of the computer system

Select one:

- ☐ True
- ☒ False ✓

SECTION 2. Simple choice questions (3 points each)

Question **7**

Correct

Mark 3.00 out of 3.00

In paging, given a logical address with an offset field with a size equal to 10 bit, the page size is equal to:

Select one:

- ☐ a. 0.5K
- ☐ b. 4K
- ☐ c. 2K
- ☒ d. 1K ✓

Question **8**

Correct

Mark 3.00 out of 3.00

The resident set management combination where the page to be replaced is chosen from all available frames in main memory is:

Select one:

- ☐ a. Fixed Allocation - Global Replacement
- ☐ b. Fixed Allocation - Local Replacement
- ☒ c. Variable Allocation - Global Replacement ✓
- ☐ d. Variable Allocation - Local Replacement

Question **9**

Correct

Mark 3.00 out of 3.00

The page replacement algorithm that looks into the future to select the page to be replaced is:

Select one:

- ☐ a. FIFO
- ☒ b. Optimal ✓
- ☐ c. CLOCK
- ☐ d. LRU

Question **10**

Correct

Mark 3.00 out of 3.00

Select the approach to thread scheduling that carries over most directly from a uniprocessor environment

Select one:

- ☒ a. Load sharing ✓
- ☐ b. Gang scheduling
- ☐ c. Dedicated processor assignment
- ☐ d. Dynamic scheduling

Question **11**

Correct

Mark 3.00 out of 3.00

Select the I/O technique that does not use interrupts.

Select one:

- ☐ a. DMA
- ☒ b. Programmed I/O ✓
- ☐ c. Interrupt-driven I/O
- ☐ d. None of the above

Question **12**

Correct

Mark 3.00 out of 3.00

Select the RAID level that requires $2 \cdot N$ disk (where N is the number of data disks).

Select one:

- ☐ a. 0
- ☒ b. 1 ✓
- ☐ c. 3
- ☐ d. 2

[◀ Deadlock Question](#)

Jump to...

[Algorithms' Part \(70 points\) ►](#)