

Started on	Tuesday, 26 November 2019, 11:59 AM
State	Finished
Completed on	Tuesday, 26 November 2019, 12:45 PM
Time taken	45 mins 59 secs
Grade	99.81 out of 100.00

Information

## True and False questions

Question **1**  
Correct  
Mark 20.00 out of 20.00

The main benefit of Gang scheduling is to reduce the overhead when executing a set of related threads

Select one:

- ☒ True ✓
- ☐ False

Information

## Simple Choice Questions

Question **2**  
Correct  
Mark 20.00 out of 20.00

Select the RAID level that does NOT include redundancy

Select one:

- ☐ a. RAID 3
- ☐ b. RAID 2
- ☐ c. RAID 6
- ☐ d. RAID 1
- ☒ e. RAID 0 ✓
- ☐ f. RAID 4

Information

## Given the following process table:

Process	A	B	C	D
T <sub>arrival</sub>	0	1	2	3
T <sub>service</sub>	2	3	4	1

## Complete the following tables:

Question **3**  
Correct  
Mark 11.00 out of 11.00

FCFS	A	B	C	D
$T_{finish}$	2 ✓	5 ✓	9 ✓	10 ✓
$T_r$	2 ✓	4 ✓	7 ✓	7 ✓
$T_r/T_s$	1 ✓	1.33 ✓	1.75 ✓	7 ✓

Question **4**  
Correct  
Mark 11.00 out of 11.00

SPN	A	B	C	D
$T_{finish}$	2 ✓	5 ✓	10 ✓	6 ✓
$T_r$	2 ✓	4 ✓	8 ✓	3 ✓
$T_r/T_s$	1 ✓	1.33 ✓	2 ✓	3 ✓

Question **5**  
Correct  
Mark 11.00 out of 11.00

HRRN	A	B	C	D
$T_{finish}$	2 ✓	5 ✓	10 ✓	6 ✓
$T_r$	2 ✓	4 ✓	8 ✓	3 ✓
$T_r/T_s$	1 ✓	1.33 ✓	2 ✓	3 ✓

Information

Execute the page replacement algorithms FIFO, LRU, and Clock for a system with 3 frames and the following string of page references:

Page references: 7,0,1,2,0,3,0,4,2,3,0,3,2

### Question 6

Partially correct

Mark 6.81 out of 7.00

## FIFO

[illegible]

## Question 7

Correct

Mark 7.00 out of 7.00

## LRU

[illegible]

### Question 8

Correct

Mark 7.00 out of 7.00

Use 1 after the page number (without white space) to represent that the use bit is enabled and a 0 (without white space) to represent that the used bit is disabled.

Example: 70 represents page 7 with the use bit equal to zero

# CLOCK

[illegible]

Consider a 32-bit file system and a 4 K-byte block size with an inode format that has 12 blocks for direct access, 1 block for single indirect access, 1 block for double indirect access. Calculate the following parameters:

Question 9

Correct

Mark 2.00 out of 2.00

Direct level capacity in K-byte

Answer:  ✓

Question 10

Correct

Mark 2.00 out of 2.00

Number of blocks available of the first level of indirection (you cannot simplify your answer by using the information units K, M, and G):

Answer:  ✓

Question 11

Correct

Mark 2.00 out of 2.00

Number of blocks of the second level of indirection (you cannot simplify your answer by using the information units K, M, and G):

Answer:  ✓