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**Duration** 43 mins 15 secs

**Grade** 100.00 out of 100.00

Information

## True and False questions

Question **1**

Correct

Mark 10.00 out of 10.00

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

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

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

The correct answer is: RAID 0

**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 **3**

Correct

Mark 5.00 out of 5.00

Direct level capacity in K-byte

Answer:



The correct answer is: 48

Question **4**

Correct

Mark 5.00 out of 5.00

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:



The correct answer is: 1024

Question **5**

Correct

Mark 5.00 out of 5.00

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

Answer:



The correct answer is: 1048576

**Execute the page replacement algorithms FIFO, and LRU 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**

Correct

Mark 10.00 out of 10.00

LRU												
7	7	7	2	2	2	2	4	4	4	0	0	0
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	0	0	0	0	0	0	0	0	3	3	3	3
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		1	1	1	3	3	3	2	2	2	2	2
		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Question **7**

Correct

Mark 10.00 out of 10.00

FIFO												
7	7	7	2	2	2	2	4	4	4	0	0	0
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	0	0	0	0	3	3	3	2	2	2	2	2
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		1	1	1	1	0	0	0	3	3	3	3
		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Information

Given the following process table:

Process	A	B	C	D
$T_{\text{arrival}}$	0	1	2	3
$T_{\text{service}}$	2	3	4	1

Complete the following tables:

Question **8**

Correct

Mark 10.00 out of 10.00

FCFS	A	B	C	D
$T_{\text{finish}}$	2 ✓	5 ✓	9 ✓	10 ✓
$T_r$	2 ✓	4 ✓	7 ✓	7 ✓

Question **9**

Correct

Mark 10.00 out of 10.00

HRRN	A	B	C	D
$T_{\text{finish}}$	2 ✓	5 ✓	10 ✓	6 ✓
$T_r$	2 ✓	4 ✓	8 ✓	3 ✓

Question **10**

Correct

Mark 15.00 out of 15.00

SPN	A	B	C	D
$T_{\text{finish}}$	2 ✓	5 ✓	10 ✓	6 ✓
$T_r$	2 ✓	4 ✓	8 ✓	3 ✓