

[Home](#) / [My courses](#) / [WIA2004](#) / [IMPORTANT NOTICE](#) / [Midterm Test](#)**Started on** Monday, 13 May 2024, 3:19 PM**State** Finished**Completed on** Monday, 13 May 2024, 3:57 PM**Time taken** 38 mins 51 secs**Grade** 35.00 out of 35.00 (100%)**Question 1**

Correct

Mark 1.00 out of 1.00

Which of the following is NOT TRUE about recovery methods?

Select one:

- ☐ a. Terminate only jobs involved in a deadlock and resubmit.
- ☐ b. Terminate all active jobs and restart them.
- ☒ c. Stops all jobs from entering the system. ✓
- ☐ d. Identify jobs involved and terminate one at a time.

Your answer is correct.

The correct answer is: Stops all jobs from entering the system.

Question 2

Correct

Mark 1.00 out of 1.00

Since segment sizes may vary in Segmented Memory Allocation Scheme, the displacement must be _____ to make sure it's not out of the segment's range.

Select one:

- ☐ a. rearrange
- ☐ b. calculated
- ☒ c. verified ✓
- ☐ d. executed

Your answer is correct.

The correct answer is: verified

Question 3

Correct

Mark 1.00 out of 1.00

Multi-programming requires that the _____ be allocated to each job/process for a period of time and _____ when the period expires.

Select one:

- ☐ a. resource, swap out
- ☐ b. memory, deleted
- ☒ c. processor, deallocated ✓
- ☐ d. register, deallocated

Your answer is correct.

The correct answer is: processor, deallocated

Question 4

Correct

Mark 1.00 out of 1.00

The 4 memory allocation schemes are being introduced to remove _____ of storing _____ contiguously.

Select one:

- ☐ a. starvation, memory
- ☒ b. restriction, programs ✓
- ☐ c. compaction, programs
- ☐ d. deadlock, memory

Your answer is correct.

The correct answer is: restriction, programs

Question 5

Correct

Mark 1.00 out of 1.00

In the transition from HOLD to READY mode, _____ checks availability of main memory and any requested devices.

Select one:

- ☐ a. Process Scheduler
- ☐ b. Scheduling algorithm
- ☒ c. Job Scheduler ✓
- ☐ d. Scheduling policy

Your answer is correct.

The correct answer is: Job Scheduler

Question 6

Correct

Mark 1.00 out of 1.00

Once a job is selected for _____, the _____ determines when each step (or set of steps) is executed (also based on certain criteria).

Select one:

- ☒ a. execution, Job Scheduler ✓
- ☐ b. processing, Associative register
- ☐ c. execution, Process Scheduler
- ☐ d. processing, processor

Your answer is correct.

The correct answer is: execution, Job Scheduler

Question 7

Correct

Mark 1.00 out of 1.00

One processor can be shared by several jobs/processes if and only if the OS has a _____ and _____ to determine when to stop working on one job and proceed to another.

Select one:

- ☒ a. scheduling policy, scheduling algorithm ✓
- ☐ b. frames and segments
- ☐ c. memory allocation scheme, algorithm
- ☐ d. pages, algorithm

Your answer is correct.

The correct answer is: scheduling policy, scheduling algorithm

Question 8

Correct

Mark 1.00 out of 1.00

Below are the responsibilities of a Process scheduler EXCEPT _____.

Select one:

- ☒ a. Decides when a job should be stopped. ✓
- ☐ b. Determines a job has concluded and should be terminated
- ☐ c. Decides when a job should be interrupted
- ☐ d. Determines which queue a job should be moved to during its execution

Your answer is correct.

The correct answer is: Decides when a job should be stopped.

Question 9

Correct

Mark 1.00 out of 1.00

OS can avoid deadlock if it knows in advance the sequence of process in each request.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 10

Correct

Mark 1.00 out of 1.00

The progress of job execution is noted in _____ and is updated as the job progresses from beginning to termination.

Select one:

- ☒ a. PCB ✓
- ☐ b. SMT
- ☐ c. PMT
- ☐ d. JMT

Your answer is correct.

The correct answer is: PCB

Question 11

Correct

Mark 1.00 out of 1.00

LRU swaps out the pages that show the least amount of recent activity based on the _____ that these pages are the least likely to be used again in the immediate future.

Select one:

- ☒ a. assumption ✓
- ☐ b. duration
- ☐ c. current situation
- ☐ d. number of frames

Your answer is correct.

The correct answer is: assumption

Question 12

Correct

Mark 1.00 out of 1.00

The memory allocation schemes eliminate the requirement that the entire program needs to reside in memory after execution.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 13

Correct

Mark 1.00 out of 1.00

Below are the example of possible cases of deadlock EXCEPT _____.

Select one:

- ☐ a. Deadlocks on file requests
- ☐ b. Deadlocks in dedicated device allocation
- ☒ c. Deadlocks in database allocation ✓
- ☐ d. Deadlocks in spooling

Your answer is correct.

The correct answer is: Deadlocks in database allocation

Question 14

Correct

Mark 1.00 out of 1.00

In Demand Paging Allocation Scheme, Page Map Table contains info to determine if the page contents have been modified or not. Why?

Select one:

- ☐ a. To show which pages are most active/inactive
- ☐ b. To delete unnecessary pages.
- ☒ c. To determine whether it need to be rewritten to secondary storage or not. ✓
- ☐ d. To determine which pages should remain in main memory and which should be swapped.

Your answer is correct.

The correct answer is: To determine whether it need to be rewritten to secondary storage or not.

Question 15

Correct

Mark 1.00 out of 1.00

Absolute address calculated using segment number and displacement refers to _____.

Select one:

- ☐ a. Associative memory
- ☐ b. Working Set
- ☐ c. Virtual Memory with Paging
- ☒ d. Virtual Memory with Segmentation ✓

Your answer is correct.

The correct answer is: Virtual Memory with Segmentation

Question 16

Correct

Mark 1.00 out of 1.00

When the system is overloaded, the _____ removes active jobs from memory to reduce the degree of multi-programming and allows jobs to be completed faster.

Select one:

- ☐ a. low-level scheduler
- ☒ b. middle-level scheduler ✓
- ☐ c. high-level scheduler

Your answer is correct.

The correct answer is: middle-level scheduler

Question 17

Correct

Mark 1.00 out of 1.00

What is the goal of Job Scheduler in OS?

Select one:

- ☒ a. To keep most components of the computer system busy most of the time ✓
- ☐ b. To put jobs in a sequence.
- ☐ c. To select several consecutive jobs with a great deal of computation.
- ☐ d. To select several jobs to run consecutively.

Your answer is correct.

The correct answer is: To keep most components of the computer system busy most of the time

Question 18

Correct

Mark 1.00 out of 1.00

_____ is the result of conservative allocation of resources in which a job is prevented from executing because it is kept waiting for resources that never become available.

Select one:

- ☒ a. Starvation ✓
- ☐ b. Deadlock

Your answer is correct.

The correct answer is: Starvation

Question 19

Correct

Mark 1.00 out of 1.00

This memory allocation scheme overcomes the problems of segmentations such as compaction, external fragmentation and secondary storage handling.

Select one:

- ☐ a. Paged allocation
- ☐ b. Segmented allocation
- ☐ c. Demand Paging
- ☒ d. Segmented/Demand Paged ✓

Your answer is correct.

The correct answer is: Segmented/Demand Paged

Question 20

Correct

Mark 1.00 out of 1.00

What is the advantage of storing programs in non-contiguous locations?

Select one:

- ☒ a. Memory is used more efficiently because an empty page frame can be used by any page of any job. ✓
- ☐ b. Memory is used more efficiently because an empty page frame can be used by many jobs.
- ☐ c. Memory is used more efficiently because an empty sector can be used by any page of any job.
- ☐ d. Memory is used more efficiently because page frame can be used by more pages of any job.

Your answer is correct.

The correct answer is:

Memory is used more efficiently because an empty page frame can be used by any page of any job.

Question 21

Correct

Mark 1.00 out of 1.00

What is the purpose of having Memory Map Table in Segmented/Demand Paged memory allocation scheme?

Select one:

- ☐ a. Lists details about every page (one for each segment).
- ☐ b. Lists details about each segment (one for each job).
- ☐ c. Lists every job in process (one for the whole system)
- ☒ d. Monitors the allocation of page frames in main memory (one for the whole system). ✓

Your answer is correct.

The correct answer is: Monitors the allocation of page frames in main memory (one for the whole system).

Question 22

Correct

Mark 1.00 out of 1.00

What are the 4 necessary conditions to be eliminated to avoid deadlock?

Select one:

- ☐ a. Race, Starvation, Circular wait and No preemption.
- ☐ b. Resource holding, No preemption, Livelock and Locking.
- ☒ c. Mutual exclusion, Resource holding, No preemption and Circular wait ✓
- ☐ d. Livelock, Starvation, Mutual exclusion and Resource holding

Your answer is correct.

The correct answer is: Mutual exclusion, Resource holding, No preemption and Circular wait

Question 23

Correct

Mark 1.00 out of 1.00

The Process Scheduler takes over after a job has been placed in the _____ queue by the Job Scheduler.

Select one:

- ☐ a. resource
- ☐ b. scheduling
- ☐ c. waiting
- ☒ d. ready ✓

Your answer is correct.

The correct answer is: ready

Question 24

Correct

Mark 1.00 out of 1.00

Below are the differences between paging and segmentation EXCEPT _____.

Select one:

- ☐ a. Pages are physical units.
- ☐ b. Pages are invisible to users and fixed sizes.
- ☒ c. Segments are invisible to users and of variable sizes. ✓
- ☐ d. Segments are logical units.

Your answer is correct.

The correct answer is: Segments are invisible to users and of variable sizes.

Question 25

Correct

Mark 1.00 out of 1.00

In Paged Memory Allocation Scheme, there is no need for compaction. Why?

Select one:

- ☐ a. There is no internal fragmentation in pages.
- ☐ b. Loads the pages (not necessarily contiguously).
- ☐ c. Locates enough empty page frames in main memory.
- ☒ d. There is no external fragmentation between frame pages. ✓

Your answer is correct.

The correct answer is: There is no external fragmentation between frame pages.

Question 26

Correct

Mark 1.00 out of 1.00

This scheme loads only a part of the program into memory for processing and job is divided into equally sized pages that initially reside in secondary storage.

Select one:

- ☐ a. Paged memory allocation
- ☐ b. Segmented allocation
- ☐ c. Single contiguous
- ☒ d. Demand paging allocation ✓

Your answer is correct.

The correct answer is: Demand paging allocation

Question 27

Correct

Mark 1.00 out of 1.00

The shifting and setting the leftmost bit when a page is referenced in LRU gives a _____ of page usage.

Select one:

- ☐ a. value
- ☐ b. feedback
- ☒ c. history ✓
- ☐ d. choice

Your answer is correct.

The correct answer is: history

Question 28

Correct

Mark 1.00 out of 1.00

FIFO swaps a page that has been in the memory shortest and LRU swaps a page that is most recently accessed.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 29

Correct

Mark 1.00 out of 1.00

"The Dining Philosophers" problem introduced by Dijkstra is trying to solve the problem of ____.

Select one:

- ☒ a. Starvation ✓
- ☐ b. Race
- ☐ c. Livelock
- ☐ d. Deadlock

Your answer is correct.

The correct answer is: Starvation

Question 30

Correct

Mark 1.00 out of 1.00

_____ is a situation where the resources needed by a job to finish execution are held by another job, which in turn, is waiting for other resources to become available

Select one:

- ☐ a. Aging
- ☒ b. Deadlock ✓
- ☐ c. Starvation

Your answer is correct.

The correct answer is: Deadlock

Question 31

Correct

Mark 1.00 out of 1.00

Pages, sectors and page frames are of the same size to increase the _____ of the OS.

Select one:

- ☒ a. efficiency ✓
- ☐ b. concurrency
- ☐ c. dependency
- ☐ d. latency

Your answer is correct.

The correct answer is: efficiency

Question 32

Correct

Mark 1.00 out of 1.00

Process Scheduler is the low-level scheduler that assigns the CPU to execute the jobs placed in the queue.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 33

Correct

Mark 1.00 out of 1.00

One _____ holds one page of job instruction and fits into one page frame of memory.

Select one:

- ☐ a. allocation
- ☐ b. frame
- ☒ c. sector ✓
- ☐ d. block

Your answer is correct.

The correct answer is: sector

Question 34

Correct

Mark 1.00 out of 1.00

The Banker's Algorithm proposed by Dijkstra regulates _____ to avoid deadlocks.

Select one:

- ☐ a. synchronized process
- ☒ b. resource allocation ✓
- ☐ c. file allocation
- ☐ d. process

Your answer is correct.

The correct answer is: resource allocation

Question 35

Correct

Mark 1.00 out of 1.00

The overhead cost of running the _____ algorithm can be quite high when there are many active jobs and many devices because it has to be invoked for each request.

Select one:

- ☐ a. starvation
- ☒ b. avoidance ✓
- ☐ c. deadlock
- ☐ d. scheduling

Your answer is correct.

The correct answer is: avoidance

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