

**Started on** Friday, September 20, 2024, 3:25 PM**State** Finished**Completed on** Friday, September 20, 2024, 3:27 PM**Time taken** 2 mins 32 secs**Points** 9.00/10.00**Grade** 90.00 out of 100.00**Question 1**

Correct

1.00 points out of 1.00

Child processes inherit UNIX ordinary pipes from their parent process because:

Select one:

- ☐ a. The pipe is part of the code and children inherit code from their parents.
- ☐ b. All IPC facilities are shared between the parent and child processes.
- ☐ c. The STARTUPINFO structure establishes this sharing.
- ☒ d. A pipe is treated as a file descriptor and child processes inherit open file descriptors from their parents. ✓

The correct answer is: A pipe is treated as a file descriptor and child processes inherit open file descriptors from their parents.

**Question 2**

Correct

1.00 points out of 1.00

The list of processes waiting for a particular I/O device is called a 🗨️ \_\_\_\_.

Select one:

- ☐ a. ready queue
- ☐ b. interrupt queue
- ☐ c. standby queue
- ☒ d. device queue ✓

The correct answer is: device queue



**Question 3**

Correct

1.00 points out of 1.00

The \_\_\_\_\_ refers to the number of processes in memory.

Select one:

- ☐ a. process count
- ☐ b. long-term scheduler
- ☐ c. CPU scheduler
- ☒ d. degree of multiprogramming ✓

The correct answer is: degree of multiprogramming

**Question 4**

Correct

1.00 points out of 1.00

Which of the following statements is true?

Select one:

- ☒ a. Reading and writing to ordinary pipes on both UNIX and Windows systems can be performed like ordinary file I/O. ✓
- ☐ b. Named pipes do not allow bi-directional communication.
- ☐ c. Only the parent and child processes can use named pipes for communication.
- ☐ d. Named pipes can only be used by communicating processes on the same machine.

The correct answer is: Reading and writing to ordinary pipes on both UNIX and Windows systems can be performed like ordinary file I/O.



**Question 5**

Correct

1.00 points out of 1.00

A process may transition to the Ready state by which of the following actions?

Select one:

- ☐ a. Completion of an I/O event
- ☐ b. Awaiting its turn on the CPU
- ☐ c. Newly-admitted process
- ☒ d. All of the above ✓

The correct answer is: All of the above

**Question 6**

Correct

1.00 points out of 1.00

The \_\_\_\_ of a process contains temporary data such as function parameters, return addresses, and local variables.

Select one:

- ☐ a. program counter
- ☐ b. text section
- ☐ c. data section
- ☒ d. stack ✓

The correct answer is: stack



**Question 7**

Correct

1.00 points out of 1.00

Which of the following statements is true?

Select one:

- ☐ a. Message passing is most useful for exchanging large amounts of data.
- ☒ b. Shared memory is typically faster than message passing. ✓
- ☐ c. Shared memory is far more common in operating systems than message passing.
- ☐ d. Message passing is typically faster than shared memory.

The correct answer is: Shared memory is typically faster than message passing.

**Question 8**

Incorrect

0.00 points out of 1.00

A blocking send() and blocking receive() is known as a 🙋 \_\_\_\_\_

Select one:

- ☐ a. rendezvous
- ☒ b. synchronized message ✗
- ☐ c. blocked message
- ☐ d. asynchronous message

The correct answer is: rendezvous



**Question 9**

Correct

1.00 points out of 1.00

A  \_\_\_\_\_ allows several unrelated processes to use the pipe for communication.

Select one:

- ☒ a. named pipe ✓
- ☐ b. ordinary pipe
- ☐ c. anonymous pipe
- ☐ d. LIFO

The correct answer is: named pipe

**Question 10**

Correct

1.00 points out of 1.00

The \_\_\_\_\_ process is assigned as the parent to orphan processes.

Select one:

- ☐ a. renderer
- ☐ b. zombie
- ☐ c. main
- ☒ d. init ✓

The correct answer is: init

