

Updated course

System Programming (CS609)

Final Term MCQS

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Topics: 93 to 141

Process identity can be obtained from the _____ - structure.

- a) CREATE_PROCESS
- b) GetProcessInfo()
- c) **PROCESS_INFORMATION**
- d) CreateProcess

Closing the child process handle _____ the process.

- a) Create
- b) **does not destroy**
- c) Does not create
- d) destroy

Closing the child process only closes the access of the _____.

- a) **parent process**
- b) All Children process of parent process
- c) All Parent process
- d) Child process

The _____ -- flag is set to be _____ in the CreateProcess() function, which will

determine whether child process will inherit copies of parent open handles.

Ans: bInheritHandles, TRUE

IPC stands for _____.

Ans: Inter Process Communication

Inherited handles are _____ copies that a parent and child might be accessing.

- a) Connected
- b) Similar
- c) **Distinct**
- d) Related

In windows there are _____ ways to get command line parameters for a process.

- a) **Two**
- b) Five
- c) Four
- d) Three

The _____ function is used to obtain the process handle using the process ID.

- a) **OpenProcess()**
- b) OpenProcessID()
- c) OpenProcess()
- d) GetCurrentProcess()

Parent process usually creates a _____ handle if parent and child process require _____ access rights.

- a) New, Same
- b) New, different
- c) **Duplicate, different**
- d) Duplicate, same

The _____ -- flag is set to be _____ in the CreateProcess() function, which will

determine whether child process will inherit copies of parent open handles.

Ans: bInheritHandles, TRUE

IPC stands for_____.

Ans: Inter Process Communication

Inherited handles are _____ copies that a parent and child might be accessing.

Ans: Distinct

lpApplicationName handle's value _____ be NULL.

Ans: Should not

One process can finish another process using the function_____.

- a) FinishProcess()
- b) Existprocess()
- c) CreateProcess()
- d) TerminateProcess()

The simplest form of synchronization can be achieved through _____ construct.

Ans: wait

The single object for which the process waits is activated by_____.

- a) hHandle
- b) bWaitAll
- c) lpHandle
- d) nCount

The array of handles for which the process waits is activated by_____.

- a) lpHandle
- b) bWaitAll
- c) nCount
- d) hHandle

The timeout period for wait() function is measured in _____.

- a) Microseconds
- b) Milliseconds
- c) Mega Hertz

d) Kilo Hertz

It is not good idea to use _____ within the program as it will give it a chance to release resources.

- a) FinishProcess()
- b) CreateProces()
- c) ExitProcess()
- d) TerminateProcess()

In Environment Block (EB), each string is _____.

Ans: Null-terminated

In Environment Block, PATH is an example of an environment _____.

Ans: String

In Environment Block is associated with _____ process (es) in the system.

Ans: each and every

In Environment Block, GetEnvironmentVariable() function returns _____ in case of failure.

Ans: 0

In Environment Block, lpName is a _____ name.

Ans: Variable

The wait() function is limited to _____ handles.

- a) 32
- b) 8
- c) 64
- d) 16

If the system is _____ then windows scheduler can run process threads on separate processors.

- a) Uni processor
- b) Multiprocessor
- c) Single core processor
- d) Linear processor

If the system is _____ time is multiple processes is an interleaved manner.

- a) Uniprocessor system
- b) Linear processor system
- c) Multiprocessor system
- d) Multicore processor system

FILETIME parameter of GetThreadTime() function is a _____ bit value.

- a) 16
- b) 32
- c) 64
- d) 8

The GetCommandLine() function returns the command line as a single _____.

- a) Integer array
- b) Character string
- c) Float variable
- d) Integer variable

Simple job Management Shell will allow _____ commands to run.

- a) Two
- b) Four
- c) Three
- d) Five

In Job Management Shell, the shell uses _____ specific file keeping track of process ID and other related information.

- a) Process
- b) User
- c) Shell
- d) System

In getting a job number, the Job Management Shell uses a number of Job management functions to manage jobs information within the _____ file.

- a) Process
- b) User

- c) Shell
- d) System

The getJobNumber() function looks into the file for a vacant place. If no place is available, it appends a new record at the _____ of the file.

- a) End
- b) Next
- c) Middle
- d) Start

Listing Background Jobs, the Job Management function uses DisplayJobs() function. This function _____ a file.

- a) Start
- b) Run
- c) Open
- d) Process

In Job Objects, firstly a job object is created using CreateJobObject(). It _____ a name and security attributes.

- a) Writes
- b) Uses
- c) Throws
- d) Closes

In Finding a Process ID, the FindProcessId() obtains the process ID of the given job number. It simply looks up into the file based on the job number and _____ the record at the specific location.

- a) Reads
- b) Sums
- c) Writes
- d) Executes

A job object is used to _____ process execution time and obtain user time statistics.

- a) Write

- b) Open
- c) Limit
- d) Read

_____ is an independent unit of execution within a process.

- a) Program
- b) Thread
- c) Process
- d) Code

in a multi-threaded system, multiple threads may exist within a single _____.

- a) Program
- b) Process
- c) Code
- d) Thread

Threads share resources within a _____.

- a) Process
- b) Thread
- c) Code
- d) Program

Threads uses the space assigned to a _____.

- a) Process
- b) Program
- c) Thread
- d) Code

Threads can also be treated as parent and child although the _____ is unaware of that .

- a) Program
- b) Thread
- c) Kernel
- d) Operating system

Which of the following version of windows was not compatible with GetProcessOfThread() function?

- a) Windows XP
- b) Windows 7
- c) Windows NT
- d) Windows 2003

which of the following function can be used to map a process with a thread?

- a) DWORD Resume Thread (HANDLE hThread)

- b) DWORD Suspend Thread (HANDLE hThread)
- c) GetProcessIdOfThread()
- d) GetThreadIOPendingFlag()

By default, the value of Suspend Count, when creating a thread, is_____.

- a) -1
- b) 0
- c) 1
- d) 2

ResumeThread() function will_____.

- a) Not affect the value of suspend count
- b) Increase the value of suspend count
- c) Decrease the value of suspend count
- d) Reset the value of suspend count

A thread will execute if and only its Suspend Count value is_____.

- a) Above 1
- b) 1
- c) 0
- d) Non zero

If there are 129 objects, how many times we will have to call the wait() function?

- a) 3
- b) 1
- c) 4
- d) 2

thread IDs and handles can be obtained using functions quite similar to the ones used with_____.

- a) Process
- b) Thread
- c) Program
- d) Object

C Library Threading functions are _____ than Windows library functions but not_____.

- a) Hard, Simpler
- b) Simpler, Diverse
- c) Diverse, Simpler
- d) Simpler, Hard

_____ library functions are thread safe than _____ library functions.

- a) C, Java
- b) C, Windows
- c) Java, C
- d) Windows, C

_____ function is used to extract the _____ from a string.

- a) getTok, String
- b) strtok(), String
- c) gettok(), Token
- d) strtok(), Token

LUBCMT is a _____.

- a) C Library for threads
- b) Java Library for threads
- c) BIOS Library for thread
- d) Windows Library for threads

The return type of `_beingthreadex()` function _____.

- a) Is HANDLE, but we need to type caste it for further processing
- b) Is HANDLE, but we don't need to type caste it for further processing
- c) Is not HANDLE, but we cannot type caste it for further processing
- d) Is not HANDLE, but we need to type caste it for further processing

Total number of files inputted, can be obtained with_____.

- a) argc
- b) argc-2
- c) argc-3
- d) argc-1

The first two parameters in `argc` will be _____ and _____ respectively.

- a) Pattern to be searched, process name
- b) Inputted file names, pattern to be searched
- c) Process name, pattern which is to be searched
- d) Inputted file name, process name

In Asynchronous Input/Output_____.

- a) Songs can be played with other operations being executed same time.
- b) Input from the keyboard will be taken after the song ended.
- c) Two operations cannot be run at the same time.
- d) Songs cannot be played until the other operations are not completed

What is the limit for object to be waited for WaitForMultipleObjects() function in Windows?

- a) 63
- b) 65
- c) 62
- d) 64

Windows treats threads as _____.

- a) Threads
- b) Processes
- c) Objects
- d) Classes

Which of the following is NOT a thread model?

- a) Peer-to-peer
- b) Client-server
- c) Boss-worker
- d) pipeline

The basic difference between boss-worker thread model and client-server model is _____.

- a) In boss worker all the threads are run at the boss's end, but in client-server model each client run a different thread
- b) In the client-server all the threads are run at the server end, but in boss worker model each worker runs different thread

In which of the following models, work moves from one thread to the next thread?

- a) Peer-to-peer model
- b) Client-server model
- c) Pipeline model
- d) Work crew model

In client server model, rather than _____ work is done _____.

- a) Concurrently, Sequentially
- b) Sequentially, Concurrently
- c) Problematic, Efficiently
- d) Linear, Straight

Once all the threads are created, they can be run using _____ function.

- a) StartThread()
- b) ReadyThread()
- c) RunThread()
- d) ResumeThread()

If you want to create 4 threads i.e, Thread 0, Thread 1, Thread 2, Thread 3, they all ,must be created at state.

- a) Suspended
- b) Running
- c) Blocked
- d) Ready

Why a file is always mapped before accessing it?

- a) To access it just like accessing some data from main memory
- b) To make it secure
- c) To reuse it any time
- d) To access it in the form of LinkedList

Four threads are created i.e., Thread 0, Thread 1, Thread 2 and Thread 3 and are running to sort a large file. Select the most appropriate statement?

- a) Wait for thread 1 to complete and the merge it with thread 0.
- b) Wait for thread 2 to complete and merge it with thread 0.
- c) Wait for thread 1 to complete and the merge it with thread 2.
- d) Wait for thread 0 to complete and the merge it with thread 2.

Which of following statement is incorrect?

- a) Program performance can be enhanced by using multithreading.
- b) Program performance scales automatically, up to same limit.
- c) Program performance can be enhanced with Parallelism.
- d) Program performance can be scaled without any certain limit.

Which of the following is an optimal situation?

- a) Output of parallel program should not be same when it is serialized.
- b) After certain limit processor speed cannot be enhanced.
- c) Multiprocessing is not responsible for multiple flows of execution.
- d) After certain limit processor speed can also be enhanced.

which of the following is a correct statement?

- a) Every worker works as separate thread on a single processor
- b) Every worker works with multiple thread on a single processor.
- c) Every worker works with multiple thread on a multiple processor.
- d) Every worker works as separate thread on a separate processor.

In Thread Local Storage (TLS) arrangement, row represents _____ while column represent_____.

- a) Thread, Process Number
- b) TLS Index, Thread

- c) Process Number, TLS Index
- d) Thread, TLS Index

The value returned using TlsSetValue() function is in the form of _____.

- a) INT
- b) BOOL
- c) LPVOID
- d) DWORD

In the form of failure, TlsAlloc()function returns_____.

- a) DWORD
- b) 0
- c) -1
- d) BOOL

which of the following functions frees the specified index number?

- a) TlsClear()
- b) TlsFree()
- c) TlsDelete()
- d) TlsReset()

Which of the following priority is the highest class in the thread?

- a) THREAD_PRIORITY_HIGHEST
- b) THREAD_PRIORITY_TIME_CRITICAL
- c) THREAD_PRIORITY_ABOVE_HIGHEST
- d) THREAD_PRIORITY_CLASS

Which of the following thread priorities will run first?

- a) Thread with THREAD_PRIORITY_BELOW_NORMAL
- b) Thread with THREAD_PRIORITY_NORMAL
- c) Thread with THREAD_PRIORITY_ABOVE_NORMAL
- d) Thread with THREAD_PRIORITY_IDLE

The range of relative thread priorities is between_____.

- a) 0 to 4
- b) 0 to 1
- c) -1 to +1
- d) -2 to +2

If there are no THREAD_PRIORITY_TIME_CRITICAL thread, the processor will run _____ first.

- a) THREAD_PRIORITY_BELOW_NORMAL

- b) THREAD_PRIORITY_LOWEST
- c) THREAD_PRIORITY_IDLE
- d) **THREAD_PRIORITY_NORMAL**

In Windows, most common processes have _____ priority class.

- a) **NORMAL_PRIORITY_CLASS**
- b) HIGH_PRIORITY_CLASS
- c) IDLE_PRIORITY_CLASS
- d) REALTIME_PRIORITY_CLASS

The scheduler will run the _____ priority _____ thread when a processor becomes available.

- a) Lowest, ready
- b) Lowest, running
- c) Highest, running
- d) **Highest, ready**

The scheduler will move a _____ thread to the _____ state if the thread's time slice expires without the thread waiting.

- a) **Running, Ready**
- b) Running, waiting
- c) Waiting, Ready
- d) Waiting, Waiting

A Thread that is ready but don't have required resource will go into _____.

- a) **Waiting state**
- b) Suspended state
- c) Running state
- d) Execution state

When a thread is suspended it goes into _____.

- a) Suspended state
- b) **Ready state**
- c) Terminated state
- d) Waiting state

Default stack size for a thread is _____.

- a) 1 Bit
- b) 1 Byte
- c) **1 MB**
- d) 1 KB

The Sleep function allows a thread to move from the _____ to the _____ state.

- a) Running, Ready
- b) Running, Terminated
- c) Running, Suspended
- d) Running, Wait

The time period is sleep function is specified in _____.

- a) Microseconds
- b) Seconds
- c) Nanoseconds
- d) Milliseconds

The function SwitchToThread() provides a way for a thread to yield its processor to another _____ thread if there is one that is _____ to run.

- a) Running, Running
- b) Ready, Running
- c) Ready, Ready
- d) Running, Ready

Fibers are scheduled by the _____.

- a) Hardware
- b) Application
- c) BIOS
- d) Operating System

Fiber management occurs at the _____ level.

- a) Kernel
- b) BIOS
- c) User space
- d) Hardware

Fiber which is shared to difficult threads _____.

- a) Should not access thread specific data
- b) Should access thread specific data
- c) Should not access private data
- d) Should not access global data

A _____ value will cause a thread to move from the running state to the ready state.

- a) 0
- b) INFINIT
- c) Negative

d) 1

A new fiber can be created by using _____.

- a) GetFiber()
- b) ConvertThreadToFiber()
- c) ConvertThreadToFiberEx()
- d) CreateFiber()

There are _____ APIs to manage fibers.

- a) 8
- b) 10
- c) 7
- d) 9

Control of a running fiber can be given to another fiber by using _____ function.

- a) CreateFiber()
- b) GetCurrentFiber()
- c) ConvertThreadToFiberEx()
- d) SwitchToFiber()

A thread can enable fiber operation by calling _____ function.

- a) SwitchToFiber()
- b) GetCurrentFiber()
- c) CreateFiber()
- d) ConvertThreadToFiberEx()

A fiber obtains its identity by calling _____ function.

- a) GetCurrentFiber()
- b) GetFiberId()
- c) GetFiberIdentity()
- d) GetFiberData()

The result of concurrent processing and normal processing _____.

- a) Yield same output
- b) Is always different
- c) May differ in some cases
- d) Is always same

It must be ensured that _____ thread(s) is/are not modifying _____ data at the same time.

- a) 1,1
- b) 1, Many

- c) Many, 1
- d) Many, Many

The volatile qualifier does not guarantee that the modifications will be visible to _____ in a desired order.

- a) Processors
- b) Ram
- c) Hard disk
- d) User

_____ are used to ensure that memory is accessed in the desired order.

- a) Multi-processor
- b) Memory blocks or memory chains
- c) Memory barrier or memory fences
- d) Memory paths or memory houses

In memory architecture and barriers, before writing the values back to memory, the processor usually keeps them in_____.

- a) Hard disk
- b) Cache
- c) Memory card
- d) Processor

The _____ functions provide memory barriers.

- a) User define
- b) Interchanged
- c) Intermediate
- d) Interlocked

Turning off _____ may adversely affect the performance but sometimes may _____ the program.

- a) Usability, fasten
- b) Optimization, slow
- c) Security, fasten
- d) Performance, slow

If a variable with a volatile scope only needs to be incremented, decremented, or exchanged, interlocked functions are the _____ choice.

- a) 2nd last
- b) Best
- c) Last

d) Worst

interlocked functions are _____ to use.

- a) Simpler, faster, but hard
- b) Simpler, faster and easy**
- c) Not simpler, but faster and easy
- d) Simpler, easy, but slow

_____ have a performance disadvantage since they create a memory barrier.

- a) Intermediate functions
- b) Interlocked memory
- c) Interchanged functions
- d) Interlocked functions**

interlockedIncrement() takes a 32-bit signed variable as an argument, which should be placed in memory at the _____ boundary.

- a) 8-byte
- b) 4-byte**
- c) 2-byte
- d) 16-byte

interlockedIncrement64() and InterlockedDecrement64() can be utilized on 64-bit systems if the addend is placed at the _____ boundary.

- a) 16-byte
- b) 8-byte**
- c) 4-byte
- d) 2-byte

According to the criterion for good thread code, _____ storage should not be used for the purpose of local storage.

- a) Cache
- b) Global**
- c) Ram
- d) Hard disk

if a _____ is used to store thread-specific data, other threads will also use it.

- a) Small variable
- b) Local variable
- c) Global variable**
- d) Large variable

Make a variable _____ if we know it includes threads-specific information.

- a) Random
- b) Local**
- c) Global
- d) Static

if we know the information in a variable will be used by other threads, we can make it_____.

- a) Main
- b) Local
- c) Global**
- d) Auto

When more than one thread can run the same code without introducing synchronization issues, it is said to be _____.

- a) Initialized property
- b) Thread safe**
- c) Threaded
- d) Local

_____ variables should not be accessible globally.

- a) String
- b) Long
- c) Locally required**
- d) Integer

In thread safe code, _____ conditions are avoided.

- a) Race**
- b) Local
- c) Global
- d) Loop

If any needed variables aren't initialized, then create_____ threads until variables are initialized.

- a) Double
- b) Suspended**
- c) Slow
- d) Fast

Thread should not change the _____ environment.

- a) Process**
- b) Hard disk
- c) Integer
- d) Ram

A thread waits for other threads to _____ using the WaitForSingleObject() or WaitForMultipleObjects() methods.

- a) Start
- b) Wait
- c) Update
- d) Terminate

Mutexes, Semaphores, Events, and Critical Section are the four synchronization objects provided by _____.

- a) Software
- b) Ram
- c) Windows
- d) Processor

When using thread synchronization objects, there are always inherent risks associated with them, such as _____.

- a) Deadlocks
- b) Multi clocks
- c) Load
- d) Low power

The part the code that can only be executed by one thread at a time is referred to as the _____.

- a) Process section
- b) Critical Section
- c) Loop section
- d) Top section

CRITICAL_SECTION Objects do not have _____.

- a) Handler
- b) Variables
- c) Process
- d) Loops

Only _____ can be in the CRITICAL_SECTION variable at time.

- a) Two threads
- b) Many threads
- c) One thread
- d) Half threads

A call to LeaveCriticalSection() must match a/an_____.

- a) EnterSection()
- b) Variables
- c) EnterCriticalSection()
- d) CriticalSectionPart()

EnterCriticalSection() can be called by _____ but only one of them is allowed to enter the critical section, while the others are blocked.

- a) Two threads
- b) Many threads
- c) One thread
- d) Half threads

Within the critical section, all the variables must be guarded by_____.

- a) Double objects
- b) A Single object
- c) Critical objects
- d) All objects

It would be _____ to use different objects in the same thread or across numerous threads that share the same data.

- a) Easy
- b) Correct
- c) Incorrect
- d) Difficult

For mutual exclusion to work, _____ variables must be protected by a single object across all threads.

- a) Shared
- b) Important
- c) Integer
- d) Specific