



CS609-System Programming
 (Solved Macq's)
For Final Term
TOPIC 93 to 190



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To seek knowledge is the duty of every Muslim man and woman

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1. The GetCommandLine() function returns the command line as a single_____
 - Float variable
 - Integer Array
 - Integer Variable
 - Character string **Topic 101**
2. Simple job management shell will allow _____commands to run.
 - Two
 - Five
 - Three **Topic 104 (jobbg,jobs,kill)**
 - Four
3. In job management shell the shell uses_____specific file keeping track of process ID and other related information
 - Shell
 - Process
 - System
 - User **Topic 104**
4. Process identify can be obtained from the_____ structure.
 - CreateProcess()
 - CREATE_PROCESS()
 - PROCESS_INFORMATION **Topic 93**
 - GetProcessInfo()
5. If the system is_____time is multiplexed among multiple processes in an interleaved manner.
 - Uniprocessor system **Topic 99**
 - Linear processor system
 - Multicore processor system
 - Multiprocessor system
6. If a system is_____then windows scheduler can run process threads on separate processors.
 - Uni processor
 - Linear processor
 - Single core processor
 - Multiprocessor **Topic 99**
7. FILETIME parameter of GetThreadTime() function is a_____bit value.
 - 32
 - 8
 - 16

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- 64 Topic 100
8. Closing the child process handle _____ the process.
- Does not create
 - Create
 - Destroy
 - Does not destroy Topic 93
9. Closing the child process only closes the access of the _____.
- All parent process
 - Parent process Topic 93
 - All children processes of parent process
 - Child process
10. In windows, there are _____ ways to get command line parameter for a process.
- Two Topic 96
 - Four
 - Five
 - Three
11. Ip ApplicationName handle's value _____ be NULL.
- Should
 - Should not According to me
 - May
 - May not
12. Control of a running fiber can be given to another fiber by using ----- function.
- GetCurrentFiber()
 - SwitchToFiber() Topic 129
 - CreateFiber()
 - ConvertThreadToFiberEx()
13. A thread can enable fiber operation by calling _____ function.
- GetCurrentFiber()
 - SwitchToFiber()
 - CreateFiber()
 - ConvertThreadToFiberEx() Topic 129
14. Inherited handles are _____ copies that a parent and child might be accessing.
- Connected
 - Similar
 - Distinct Topic 118
 - Related
15. A fiber can obtain its identity by calling _____ function.
- GetFiberData()
 - GetCurrentFiber() Topic 129
 - GetFiberId()

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- GetFiberIdentify()
16. The _____ function is used to obtain the process handle using the process ID.
- openProcesses()
 - GetCurrentProcess()
 - **OpenProcess()** Topic 93
 - OpenprocessID()
17. Parent process usually creates a _____ handle if parent and child process require _____ access rights.
- Duplication, same
 - **Duplication, different** Topic 94
 - New, same
 - New, different
18. There are ----- APIs to manage fiber.
- 10
 - 9
 - **7** Topic 129
 - 8
19. One process can finish another process using the function _____
- FinishProcess()
 - CreateProcess()
 - ExistProcess()
 - **TerminateProcess()** Topic 95
20. The simplest form of synchronization can be achieved through _____ construct.
- Run
 - Halt
 - Lock
 - **Wait** Topic 96
21. The single object for which the process waits is activated by _____.
- IpHandle
 - bWaitAll
 - **hHandle** Topic 96
 - nCount
22. The array of handles for which the process wait is activated by _____
- **IpHandle** Topic 96
 - hHandle
 - nCount
 - bWaitAll
23. _____ is the number of objects in an array. Should not exceed MAXIMUM WAIT OBJECTS
- IpHandle

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- hHandle
 - nCount Topic 96
 - bWaitAll
24. _____ is the timeout period for wait. 0 for no wait and INFINITE for indefinitewait.
- IpHandle
 - hHandle
 - nCount
 - dwMilliseconds Topic 96
25. _____ handle describes if it's necessary to wait for all the objects to get free
- IpHandle
 - hHandle
 - nCount
 - bWaitAll Topic 96
26. How many The possible return values are ____
- 2
 - 3
 - 4
 - 5 Topic 95
27. The timeout period for wait() function is measured in _____.
- Millisecond Topic 96
 - Kilo hertz
 - Mega hertz
 - Microsecond
28. Its not a good idea to use _____ within the program as it will not give it a chance to release resources.
- createProcess()
 - TerminateProcess()
 - ExitProcess() Topic 95
 - FinishProcess()
29. A new fiber can be created by using _____
- ConvertThreadToFiberEx()
 - ConvertThreadToFiber()
 - CreateFiber() Topic 129
 - GetFiber()
30. In Environment Block, IpName is a _____ name.
- Stack
 - Array
 - Process
 - Variable Topic 97

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

- 0 Topic 97
- NULL
- -1
- UNDEFINED

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

- Stack
- Array
- Process
- String Topic 97

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

- Some
- No
- Each and every Topic 97
- Exactly one

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

- Five character long
- Null terminated Topic 97
- Undefined
- Empty

35. The wait() function is limited to _____ handles.

- 32
- 8
- 64 Topic 98
- 16

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

- Negative
- INFINITE
- 1
- 0 Topic 127

37. Fiber which is shared to different threads _____

- Should not access private data
- Should not access global data
- Should access thread specific data
- Should not access thread specific data Topic 128

38. Fibers are scheduled by the _____

- Hardware
- Operating system
- Application Topic 128

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- BIOS
39. IPC stands for
- Inter process communication My Point of View
 - Inter privacy communication
 - Information process communication
 - Information and privacy communication
40. The sleep function allows a thread to move the _____ to the _____ state.
- Running, Suspended
 - Running, terminated
 - Running, ready
 - Running, wait Topic 127
41. The function SwitchToThread() provides a way for a thread to yield its processor to another _____ thread if there is one that is _____ to run.
- Ready, Running
 - Running, Running
 - Ready, Ready Topic 127
 - Running, Ready
42. The time period in sleep function is specified in _____.
- Seconds
 - Milliseconds My point of View
 - Nanoseconds
 - Microseconds
43. Default stack size for a thread is _____.
- 1MB Topic 126
 - 1 Byte
 - 1 Bit
 - 1KB
44. A scheduler will move a _____ threads to the _____ state if the threads time slice expires without the thread waiting.
- Waiting, Waiting
 - Running, Ready Topic 125
 - Running, Waiting
 - Waiting, Ready
45. When a thread is suspended it goes into _____
- Terminated state
 - Waiting state
 - Suspended state
 - Ready state Topic 125
46. A thread that is ready but do not have required resource will go into _____
- Running state

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- Suspended state
 - **Waiting state** My point of View
 - Execution state
47. The scheduler will run the _____ priority _____ thread when a processor becomes available.
- **Highest, ready** Topic 125
 - Lowest, ready
 - Highest, running
 - Lowest, running
48. If there are no `THREAD_PRIORITY_TIME_CRITICAL` thread, the process will run _____ first.
- `THREAD_PRIORITY_LOWEST`
 - **`THREAD_PRIORITY_NORMAL`** My point of View
 - `THREAD_PRIORITY_BELOW_NORMAL`
 - `THREAD_PRIORITY_IDLE`
49. Which of the following priority is the highest class in the thread?
- `THREAD_PRIORITY_ABOVE_HIGHEST`
 - **`THREAD_PRIORITY_TIME_CRITICAL`** My point of View
 - `REALTIME_PRIORITY_CLASS`
 - `THREAD_PRIORITY_HIGHEST`
50. The range of relative thread priorities is between _____.
- 0 to 1
 - 0 to 4
 - **-2 to +2** (+2) Topic 123
 - -1 to +1
51. Which of the following thread priorities will run first?
- **Thread with `THREAD_PRIORITY_ABOVE_NORMAL`** My point of View
 - Thread with `THREAD_PRIORITY_BELOW_NORMAL`
 - Thread with `THREAD_PRIORITY_IDEAL`
 - Thread with `THREAD_PRIORITY_NORMAL`
52. In windows, most common processes have _____ priority class
- `HIGH_PRIORITY_CLASS`
 - `IDLE_PRIORITY_CLASS`
 - **`NORMAL_PRIORITY_CLASS`** My Point View
 - `REALTIME_PRIORITY_CLASS`
53. The value returned using `TISetValue()` function is in the form of _____
- **BOOL** My Point of View
 - INT
 - LPVOID
 - DWORD

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

- Thread TLS Index Topic 123
- Process Number, TLS Index not sure
- TLS index, Thread
- Thread, process Number

55. Which of the following function frees the specified index numbers?

- TlsClear()
- TlsFree() Topic 123
- TlsReSet()
- TlsDelete()

56. API is used to allocate the index and it returns the TLS index in the form of the double word

- TlsClear()
- TlsAlloc() Topic 123
- TlsReSet()
- TlsDelete()

57. _____ Provided valid indexes are used, The programmer can access TLS space using these simple GET/SET APIs

- TlsGetValue ()
- Both A and C Topic 123
- TlsSetValue ()
- TlsDelete()

58. In the form of failure, TlsAlloc() function returns _____.

- DWORD
- 0
- -1 Topic 123
- BOOL

59. Which of the following is a correct statement?

- Every worker work with multiple processors on multiple processor
- Every worker work as a separate thread on a separate processor Topic 122
- Every worker work as a separate thread on a single processor
- Every worker work with multiple processors on single processor

60. Which of the following is an optimal situation?

- After certain limit processor speed can also be enhanced
- After certain limit processor speed cannot be enhanced Topic 122
- Multiprocessing is not responsible for multiple flows of execution
- Output of parallel program should not be same when it is serialized

61. Which of following statement is incorrect?

- Program performance can be scaled without any certain limit.

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- Program performance can be enhanced by using multithreading.
 - Program performance can be enhanced with Parallelism.
 - Program performance scales automatically, up to some limit.
62. 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?
- Wait for thread 1 to complete and merge it with thread 2.
 - Wait for thread 0 to complete and merge it with thread 2.
 - **Wait for thread 1 to complete and merge it with thread 0. My point of view**
 - Wait for thread 2 to complete and merge it with thread 0.
63. Why a file is always mapped before accessing it?
- **To access it just like accessing some data from main memory My point of view**
 - To make it secure
 - To reuse it any time
 - To access it in the form of LinkedList
64. Once all the threads are created, then can be run using _____ function.
- ResumeThread()
 - ReadyThread()
 - **RunThread() Topic 121**
 - StartThread()
65. The basic difference between boss-worker thread model and client-server model is _____
- In boss worker all the thread are run at the boss's end, but in client-server model, each client run a different thread
 - **In the client-server all the thread are run at the server end, but in the boss worker model, each worker runs different thread Conceptual**
66. Which of the following is not a thread model?
- **Peer-to-peer Topic 119**
 - Pipeline
 - Boss-worker
 - Client-server
67. In client server model, rather than _____ work is done _____
- Concurrently, sequentially
 - Problematic, Efficiency
 - **Sequentially, Concurrently Topic 119**
 - Linear, Straight
68. In which of the following models, work moves from one thread to the next thread?
- Peer-to-peer Model
 - **Pipeline Model Topic 119**
 - Boss-worker Model
 - Client-server Model

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69. The _____ flag is set to be _____ in the CreateProcess() function, which will determine whether child process will inherit copies of parent open handles.

- bInheritFlag, FALSE
- **bInheritHandle, TRUE** My point of View
- bInheritFlag, TRUE
- bInheritHandles, FALSE

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

- Similar
- Connected
- **Distinct** Wikipedia
- Related

71. The get.JobNumber() function looks into the file for a vacant place. If no place is available, It appends a new record at the _____

- Next
- Start
- Middle
- **End** My point of View

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

- Process
- **User** Topic 103
- Shell
- System

73. Fiber management occurs at the _____ level.

- Hardware
- **User space** Topic 128
- Kernel
- BIOS

74. In Asynchronous input/ Output _____.

- Input from the keyboard will be taken after the song is ended.
- Song cannot be played until the other operations are not completed.
- **Song can be played with other operations being executed same time.**

Topic 119 also Conceptual (correct Accordingly)

- Two operations cannot be run at the same time.

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

- **Process name, pattern which is to be searched** Topic 118
- Inputted file names, pattern to be searched
- Pattern to be searched, process name
- Inputted file names, process name

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76. Total number of files inputted, can be obtained with _____ -
- Argc-1
 - Argc-2 **Topic 118 (Confusion kindly Correct Accordingly)**
 - Argc-3
 - Argc
77. C Library Threading functions are _____ than windows library functions but not _____
- Simpler, Hard
 - Hard, Simpler
 - Diverse, Simpler
 - Simpler, Diverse **Topic 118**
78. LIBCMT is a _____
- BIOS Library for thread
 - Java Library for threads
 - C Library for threads **Topic 118**
 - Windows Library for threads
79. _____ function is used to extract _____ from a string.
- gettok(), Token
 - getTok, String
 - strtok(), String
 - strtok(), Token **Topic 118**
80. The return type of _beingthreadex() function _____
- is HANDLE, but we need to type caste it for further processing.
 - Is not HANDLE, but we cannot type caste it for further processing.
 - is not HANDLE, we need to type caste it for further processing. **Topic 118 Conceptual**
 - is HANDLE, but we don't need to type caste for further processing.
81. _____ library function are thread safe than _____ library functions.
- C, java
 - Java, C
 - C, Windows **Topic 118**
 - Windows, C
82. Windows treats threads as _____.
- Objects **Topic 116**
 - Threads
 - Processes
 - Classes
83. When a thread exits, the thread _____ is deallocated and the handle referring to the thread in invalidated.
- Stack **Topic 113**
 - List

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- Queue
 - Array
84. ResumeThread() function will_____.
- Decrease the value of suspend count **Topic 112**
 - Reset the value of suspend count
 - Increase the value of suspend count
 - Not affect the value of suspend count
85. By default, the value of Suspend count, when creating a thread, is_____.
- 2
 - 1
 - 0 **Topic 112**
 - -1
86. Which of the following version of windows was not compatible with GetProcessIdOfThread() function?
- Windows 2003
 - Windows 7
 - Windows NT
 - Windows XP **Topic 115**
87. Which of the following function can be used to map a process with a thread?
- GetProcessIdOfThread() **My Point of View**
 - DWORD ResumeThread (HANDLE hThread)
 - DWORD SuspendThread (HANDLE hThread)
 - GetThreadOPendingFlag()
88. A thread will execute if and only if its Suspend Count value is _____
- Non zero
 - Above 1
 - 0 **Topic 115**
 - 1
89. Threads can also be treated as parent and child although the_____is unaware of that.
- Kernel
 - Thread
 - Program
 - Operating system **Topic 112**
90. Threads share resources within a _____
- Code
 - Program
 - Thread
 - Process **Topic 110**
91. Threads uses the space assigned to a _____
- Thread

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- Process Topic 111
- Code
- Program
92. In a multi-threading system, multiple threads may exist within a single _____
- Thread
- Process Topic 109
- Code
- Program
93. _____ is an independent unit of execution within a process.
- Thread Topic 109
- Process
- Code
- Program
94. A job object is used to _____ process execution time and obtain user time statistics.
- Limit Topic 108
- Write
- Read
- Open
95. The getJobNumber() function looks into the file for a vacant place. If no place is available, it appends a new recover of the file.
- Start
- Next
- Middle
- End My Point of View
96. In job Management Shell, the shell uses _____ specific file keeping track of process ID and other related information.
- User Topic 104
- Process
- Shell
- System
97. In finding a Process ID, the FindProcessId() obtains the process ID of the given job number. It simply looks on job number and _____ the record at the specific location.
- Sums
- Executes
- Reads Topic 106
- Writes
98. Simple job management shell will allow _____ commands to run.
- Two
- Three Topic 104 (Jobbg, jobs, kill)
- Four

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- Five
99. In listing background jobs, the job management function uses display jobs () function.
This function _____ a file
- Run
 - Start
 - Process
 - **Open** Topic 105
100. In Job Objects, firstly a job object is created using CreateJobObject(). It _____ a name and security attributes.
- Writes
 - Closes
 - **Uses** Topic 107
 - Throws
101. Control of a running fiber can be given to another fiber by using _____ function.
- GetCurrentFiber()
 - **SwitchToFiber()** Topic 129
 - CreateFiber()
 - ConvertThreadToFiberEx()
102. A thread can enable fiber operation by calling _____ function.
- GetCurrentFiber()
 - SwitchToFiber()
 - CreateFiber()
 - **ConvertThreadToFiberEx() OR ConvertThreadToFiber()** Topic 129
103. Fiber can obtain its identity by calling _____ function.
- GetFiberData()
 - **GetCurrentFiber()** Topic 129
 - GetFiberId()
 - GetFiberIdentity()
104. There are _____ APIs to manage fibers.
- 10
 - 9
 - **7** Topic 129
 - 8
105. A new fiber can be created by using _____
- ConvertThreadToFiberEx()
 - ConvertThreadToFiber()
 - **CreateFiber()** Topic 129
 - GetFiber()
106. The wait() function is limited to _____ handles
- 32

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- 16
 - 8
 - 64 Topic 98
107. Windows OS does not have any structure that keeps track record of the _____ processes.
- Child
 - Grand-child
 - Parent
 - Parent-Child My point of View
108. In comparison of DLL, executable library files are linked at _____ time.
- Link
 - Run
 - Compiler My Point of View and GOOGLE
 - Load
109. Interlocked functions are _____ to use.
- Simpler, Faster but hard
 - Simpler, Faster and easy Topic 135
 - Not simpler but faster and easy
 - Simpler easy but slow
110. Thread should not change the _____ environment.
- Process Topic 137
 - Hard disk
 - Integer
 - Ram
111. Which of the following function can be used to map the process with thread?
- DWORD Resume Thread (HANDLE hThread)
 - DWORD Suspend Thread (HANDLE hThread)
 - GetProcessIdOfThread() My Point of View
 - GetThreadIOPendingFlag()
112. Mutexes, Semaphores, Events, and Critical Section are the four synchronization objects provided by _____.
- Software
 - RAM
 - Windows Topic 138
 - processor
113. Like every other resource, threads are also treated as _____.
- Code
 - Object Topic 112
 - Program
 - Thread

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114. The process Execution times uses the API GetCommandLine() to get the command line as a single_____.
- Bool
 - Float
 - **String** Topic 102
 - None
115. lpApplicationName_____be NULL.
- May
 - Should
 - **Should not** My point of View
 - May not
116. Volatile stage is a_____level facility.
- **Compiler or windows** Topic 133
 - Programmer
 - BIOS
 - Hardware
117. CRITICAL_SECTION Objects do not have_____.
- Loops
 - **Handler** Topic 139
 - Variables
 - Process
118. CRITICAL_SECTION Objects do not have__and are not shared among the_____.
- Handler
 - **Both A and C** Topic 139
 - process
 - Process
119. _____variables should not be accessible globally.
- String
 - **Locally required** Topic 139
 - Long
 - Integer
120. Thread IDs and handles can be obtained using functions quite similar to the ones used with_____
- **Process** Topic 114
 - Program
 - Thread
 - Object
121. A thread can be signaled from which of the following?
- ResumeThread()

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- CloseThread()
 - CreateThread()
 - ExitThread() OR TerminateThread() Topic 117
122. If there are 129 objects, how many times we will have to call the wait () function?
- 4
 - 6
 - 3 My Point of View
 - 2
123. ResumeThread() function will ____
- Increase
 - Decrease Conceptual
 - None of given
 - Both
124. If you want to create 4 thread i.e, thread 0, thread 1, thread 2, and thread 3, they all must be created at ____ state.
- Suspended Topic 120
 - Blocked
 - Running
 - Ready
125. It must be ensured that ____ thread(s) is/ are not modifying ____ data at same time.
- Many, Many
 - 1, Many
 - Many,1 Topic 131 Conceptual
 - 1,1
126. The result of concurrent processing and normal processing _____
- Yield same output
 - Is always different
 - Is always same
 - May differ in some cases My point of View
127. In memory architecture and barriers, before writing the value s back to memory, the processor usually keeps them in _____
- Hard disk
 - Memory card
 - Processor
 - Cache Topic 134
128. _____ are used to ensure that memory is accessed in the desired order.
- Memory barriers or memory fences Topic 134
 - Memory paths or memory houses
 - Multi processors

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- Memory blocks or memory chains
129. Turning off_____may adversely affect the performance but sometimes may _____the program.
- Usability, faster
 - Optimization, slow **Topic 133**
 - Performance, slow
 - Security, faster
130. Turning off Optimization may adversely affect the performance but sometimes may slow the program. ANSI C provides a qualifier_____for this purpose.
- Volatile **Topic 131**
 - Non-volatile
 - Both A and B
 - None of Given
131. The volatile qualifier does not guarantee that the modifications will be visible to _____in a desired order.
- Processors **Topic 134**
 - User
 - Ram
 - Hard disk
132. The_____functions provide memory barriers.
- Interlocked **Topic 139**
 - User define
 - Interchange
 - Intermediate
133. Interlocked increment () takes a 32-bit signed variable as an arguments, which should be placed in memory at the_____boundary.
- 4-byte **Topic 135**
 - 8-byte
 - 16-byte
 - 2-byte
134. If a variable with a volatile scope only needs to be incremented, decremented, or exchanged, interlocked functions are the_____choice.
- Last
 - Best **Topic 135**
 - 2nd last
 - Worst
135. _____are most suited if variable with volatile scope only need to be incremented,decremented and exchanges
- Interlocked functions **Topic 135**
 - Local

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- Global
 - None
136. The most basic of Interlocked Functions
- InterlockedIncrement()
 - InterlockedDecrement()
 - **Both A and B** Topic 135
 - None of Given
137. How many Basic Function of Interlocked()
- 1
 - **2** Topic 135
 - 3
 - 4
138. If any needed variables are not initialized, then create _____ threads until variables are initializes.
- **Suspended** Topic 137
 - Double
 - Slow
 - Fast
139. In thread safe code, _____ conditions are avoided.
- **Race** Topic 137
 - Loop
 - Local
 - Global
140. When more than one thread can run the same code without introducing synchronization issues, it is said to be _____
- **Thread safe** Topic 137
 - Local
 - Threaded
 - Initialized properly
141. InterlockedIncrement64() and interlockedDecrement64() can be utilized on 64-bit systems if the addend is paced at the _____ boundary.
- **8-byte** Topic 135
 - 4-byte
 - 2-byte
 - 16-byte
142. _____ have a performance disadvantage since they create a memory barrier.
- Interchanged function
 - **Interlocked function** Topic 135
 - Intermediate function
 - Interlocked memories

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143. If a _____ is used to store thread-specific data, other threads will also use it.
- Small variable
 - Large variable
 - **Global variable** **topic 136**
 - Local variable
144. Make a variable _____ if we know it includes thread-specific information.
- Static
 - **Local** **Topic 136**
 - Global
 - Random
145. According to the criterion for good thread code, _____ storage should not be used for the purpose of local storage.
- Hard disk
 - **Global** **Topic 136**
 - Cache
 - Ram
146. If we know the information in a variable will be used by other threads, we can make it _____.
- **Global** **Topic 136**
 - Local
 - Main
 - Auto
147. When using thread synchronization objects, there are always inherent risks associated with them such as _____
- Lower power
 - Multi clocks
 - Load
 - **Deadlocks** **Topic 137**
148. A thread waits for other threads to _____ using the waitForStringObject() or waitForMultipleObjects() methods.
- Wait
 - **Terminate** **Topic 138**
 - Start
 - Update
149. The part of the code that can only be executed by one thread at a time is referred to as the _____
- Process section
 - Loop section
 - Top section
 - **Critical section** **Topic 139**

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150. Only _____ can be in the CRITICAL_SECTION variable at a time
- Odd threads
 - Many threads
 - **One thread** Topic 139
 - Even threads
151. Which function is used to initialize the CRITICAL_SECTION.
- **InitializeCriticalSection()** Topic 139
 - DeleteCriticalSection()
 - Both A and B
 - None of Given
152. Which function is used to Delete the CRITICAL_SECTION.
- InitializeCriticalSection()
 - **DeleteCriticalSection()** Topic 139
 - Both A and B
 - None of Given
153. Multiple threads may call EnterCriticalSection() but only _____ thread is allowed to enter the critical section while the rest are blocked.
- **One** Topic 139
 - Two
 - Three
 - Four
154. A call to LeaveCriticalSection() must match a/ an _____
- EnterSection()
 - Variables
 - **EnterCriticalSection()** Topic 139
 - CriticalSectionPart()
155. CRITICAL_SECTION object do not have _____
- Process
 - Variables
 - **Handles** Topic 139
 - Loops
156. EnterCriticalSection() can be called by _____ but only one of them is allowed to enter the critical section, while the others are blocked.
- Two threads
 - **One thread** Topic 139
 - Half thread
 - Many threads
157. Using the critical section construct is _____ and intuitive.
- **Easy** Topic 140
 - Difficult

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- Short
 - Long
158. It would be _____ to use different objects in the same thread or across numerous threads that share the same data.
- Easy
 - **Incorrect** Topic 141
 - Correct
 - Difficult
159. For mutual exclusion to work, _____ variables must be protected by a single object across all threads.
- Integer
 - Important
 - **Shared** Topic 141
 - specific
160. Within the critical section, all the variables must be guarded by _____
- Critical object
 - All objects
 - **A single object** Topic 141
 - Double object
161. What is the limit for object to be waited for waitForMultiple Objects () function in window?
- 63
 - 65
 - 62
 - **64** Topic 141
162. Producer consumer problem is a classical problem in _____
- Critical Section
 - Conical collection
 - **Mutual Exclusion** Topic 142
 - None of given
163. The producer periodically _____ a message.
- **Creates** Topic 142
 - Delete
 - Update
 - None
164. The producer also computes a simple _____ of the message
- **Checksum** Topic 142
 - Contents
 - Update
 - None

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165. _____ is a short form of Mutual Exclusion
- Mechanism
 - Checksum
 - **Mutex** Topic 143
 - All of the given
166. Which of the following Windows functions used to manage mutexes.
- CreateMutex()
 - ReleaseMutex()
 - OpenMutex()
 - **All of the given** Topic 144
167. Home Many windows Function are used to manage mutex.
- 1
 - 2
 - **3** Topic 144
 - 4
168. lpMutexName is the name of the mutex.
- **True** Topic 144
 - False
169. OpenMutex() is used to _____ and _____ named mutex
- Existing, open
 - **Open, Existing** Topic 144
 - Open, Delete
 - Existing, Delete
170. However, abrupt termination of a thread indicates a serious programming flaw. Mutex waits can _____
- Time In
 - **Time Out** Topic 146
 - Has
 - Does Not
171. If NULL is returned it indicates dose not failure.
- True
 - **False** Topic 144
172. Semaphore maintains a count
- **True** Topic 147
 - False
173. A semaphore is in a signaled state when the count is greater than.
- 1
 - -1
 - **0** Topic 147
 - None of given

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174. Semaphore is _____ when the count is 0.
- Signaled
 - **Un-signaled** Topic 147
 - Release
 - None of the given
175. Which of the following are used in semaphore Count?
- CreateSemaphore()
 - CreateSemaphoreEx()
 - OpenSemaphore()
 - **All of the Given** Topic 147
176. cReleaseCount gives the count after the release and must be greater than ____.
- 1
 - -1
 - **0** Topic 147
 - None of given
177. Events are classified as either
- manual-reset
 - auto-reset
 - **Both A and B** Topic 150
178. A _____ event can signal several waiting threads simultaneously and can be reset.
- **manual-reset** Topic 150
 - auto-reset
179. An _____ event signals a single waiting thread, and the event is reset automatically.
- manual-reset
 - **auto-reset** Topic 150
180. If bInitialState is TRUE, the event is set to a _____ state
- **Signaled** Topic 150
 - Un-Signaled
181. If the event is manual-reset, it remains signaled until a thread explicitly calls ResetEvent().
- **True** Topic 150
 - False
182. How many ways to use Events?
- 1
 - 2
 - 3
 - **4** Topic 151

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183. Windows operating system is a multithreaded _____ that provides support for real time applications and multiprocessors.
- Hardware
 - User space
 - **Kernel** Topic 153
 - BIOS
184. Program design and performance can be simplified and improved by
- Odd threads
 - Many threads
 - **Threads** Topic 153
 - Even threads
185. _____ Synchronization is a way to coordinate processes that use shared data
- Shell
 - **Process** Topic 153
 - System
 - User
186. Which of the following Synchronization objects.
- Critical Section
 - Semaphore
 - Mutex
 - **All of the Given** Topic 153
187. The _____ functions provide a simple mechanism for synchronizing access to a variable that is shared by multiple threads.
- **Interlocked** Topic 155
 - Local
 - Global
 - None
188. Memory allocation is then performed using using _____ rather than using _____
- **HeapAlloc() and HeapFree(), malloc() and free()** Topic 56
 - malloc() and free() and HeapAlloc() and HeapFree(),
189. Each thread that performs memory management can create a Handle to its own heap using _____
- **HeapCreate()** Topic 156
 - HeapAlloc()
 - HeapFree()
 - None of the given
190. Threads allocate memory and free memory using _____ functions respectively
- **malloc () and free ()** Topic 156
 - free () and malloc ()

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191. How many aspects compare the performance on the Basis.
- 1
 - 2
 - 3 **Topic 157**
 - 4
192. Which of the Following aspects that are used to compare the Performance.
- Real-Time
 - User-Time
 - System-time
 - All of the given **Topic 157**
193. MX(Mutexes) version costs more than _____times than IN
- 2 times
 - 2 to 30 times **Topic 158**
 - 1 to 30 times
 - 3 times
194. CS (Critical Section) version costs _____times more than IN
- 2 to 30 times
 - 2 times **Topic 158**
 - 1 to 30 times
 - 3 times
195. For older version of windows CS was not scalable.
- True **Topic 159**
 - False
196. Critical Section works in_____
- Hardware
 - User space **Topic 161**
 - Kernel
 - BIOS
197. How many methods of Lightweight Reader Writer Locks.
- 1
 - 2 **Topic 163**
 - 3
 - 4
198. Which of the following methods of Lightweight Reader Writer Locks
- Exclusive Mode
 - Shared Mode
 - Both A and B **Topic 163**
 - None of given
199. How many APIs which are used to access SRWs in Exclusive mode.
- 1

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- 2 Topic 164
 - 3
 - 4
200. When a thread is created almost _____ space is reserved for that thread and with increasing threads memory area is piled up.
- 1 MB Topic 166
 - 1 KB
 - 1 Bit
 - 1 Byte
201. If you _____ the threads the you can lose the benefits of parallelism and synchronization
- Minimize Topic 166
 - Maximize
202. Which of the following optimization technique?
- Use of semaphore throttles
 - Asynchronous I/O
 - Using I/O completion ports
 - All of the Given Topic 166
203. Every process has a dedicated _____ pool.
- Odd threads
 - Many threads
 - Threads Topic 172
 - Even threads
204. The thread pool is used to _____ the number of application threads and provide management of the worker threads
- Increased
 - Reduce Topic 172
 - Constant
 - Equal
205. How many types of call back Function.
- 1
 - 2 Topic 173
 - 3
 - 4
206. How many sorts of parallelism?
- 1
 - 2 Topic 177
 - 3

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- 4
207. Which of the following parallelism define every loop iteration can execute concurrently.
- **Loop parallelism** Topic 177
 - Fork-join parallelism
208. _____ the control flow divides (like the shape of the fork) into multiple flows that join later
- Loop parallelism
 - **Fork-join parallelism** Topic 177
209. Each process has its own process affinity mask and a system affinity mask.
- **True** Topic 180
 - False
210. How many Bits vector of MASK?
- 1
 - 2
 - **3** Topic 180
 - 4
211. Which of the following Bits vector of MASK?
- System Affinity Mask
 - Process Affinity Mask
 - Thread Affinity Mask
 - **All of the Given** Topic 180
212. IPC stand for_____
- Internet process control
 - **Inter-process Communication** Topic 180
 - Inter-parameter control
 - None of the Given
213. How many Types of Pipe?
- 1
 - **2** Topic 181 (Anonymous Pipes, Named Pipes)
 - 3
 - 4
214. File-like object called Pipe can be used for IPC.
- **True** Topic 181
 - False
215. Which of the following are correct statement of Anonymous Pipes?
- **Simple anonymous pipes are character based and half duplex.** Topic 181
 - They allow network wide communication.
216. Which of the following are correct statement of Named Pipes?

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- There can be multiple open handles for a pipe
 - They allow network wide communication.
 - Much more powerful than anonymous pipes
 - **All of the Given** Topic 181
217. Anonymous pipes allow _____(half-duplex) communication
- **one-way** Topic 182
 - two-way
218. The default set of cbPipe is _____
- **0** Topic 182
 - 1
 - 2
 - 3
219. Named Pipe is _____
- Directional
 - **Bi-Directional** Topic 184
 - Tri-Directional
 - None of the Given
220. The pipe name would be like this.
- **[\\.\pipe\\[path\]pipename](#)** Topic 187
 - [\\servername\pipe\pipename](#)
221. Which of the following connection sequences for the Client.
- The client connects with a server
 - Communicates with the server using CreateFile()
 - Performs Read and Write operations and ultimately disconnects
 - **All of the given** Topic 190
222. Which of the following connection sequences for the Server.
- Communicates with the client.
 - As a result ReadFile() returns FALSE
 - The server-side connection is disconnected
 - **All of the given** Topic 190
223. Which of the following Returns information whether the pipe is in blocking or non-blocking mode, message oriented or byte oriented, number of pipe instances, and so on.
- SetNamedPipeHandleState()
 - **GetNamedPipeHandleState()** Topic 188
 - GetNamedPipeInfo()
 - None of the given
224. Which of the following Allows the program to set the same state attributes. Mode and other values are passed as reference so that NULL can also be passed indicating no change is desired.

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- **SetNamedPipeHandleState()** Topic 188
 - GetNamedPipeHandleState()
 - GetNamedPipeInfo()
 - None of the given
225. Which of the following Determines whether the handle is for client or a server, buffer sizes, and so on.
- SetNamedPipeHandleState()
 - GetNamedPipeHandleState()
 - **GetNamedPipeInfo()** Topic 188
 - None of the given
226. Call _____ to disconnect from the handle
- **DisconnectNamedPipe()** Topic 189
 - WaitNamedPipe()
 - ConnectNamedPipe()
 - All of the given
227. _____ is used to synchronize connections to the server
- DisconnectNamedPipe()
 - **WaitNamedPipe()** Topic 189
 - ConnectNamedPipe()
 - All of the given
228. _____ are the security attributes as discussed previously
- **lpSecurityAttributes** Topic 186
 - nOutBufferSize
 - dwOpenMode
 - nMaxInstance
229. _____ and _____ give the size in bytes of input and output buffer
- **nOutBufferSize and nInBufferSize** Topic 186
 - nInBufferSize and nOutBufferSize
230. which of the following determines maximum number of pipe instances?
- lpSecurityAttributes
 - nOutBufferSize
 - dwOpenMode
 - **nMaxInstance** Topic 186
231. which of the following indicates whether writing is message oriented or byte oriented?
- **dwPipeMode** Topic 186
 - nOutBufferSize
 - dwOpenMode
 - nMaxInstance
232. _____ is the default timeout period.

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- nDefaultTimeOut Topic 186
 - nOutBufferSize
 - dwOpenMode
 - nMaxInstance
233. The period (.) stands for local machine.
- True Topic 186
 - False
234. In mutex which type of data structure that stores the resource should also be used to store the mutexes because mutexes correspond to the resources.
- Different Topic 154
 - Same
 - Equal
 - None of the Given
235. Only the _____ Scheduler decides which thread has the priority according to its scheduling policy.
- Hardware
 - Application
 - OS Topic 154
 - BIOS
236. The shell uses a file keeping track of process ID and other related information?
- User-specific
237. The array of handles for which the process waits.
- lpHandle