



CS609
SYSTEM PROGRAMMING
Update Handouts (Topics)
Final Term Mcqs (2023)

Sample Paper
2022

100% Correct

Solved by Faisal (J.c FIA)

VU

Question No: 1 (Marks: 01) - Please choose the correct option

A _____ API is used to create a single threaded child process.

- A. CreateFile()
- B. CreateProcess()
- C. CreateThread()**
- D. CreateProcessThread()

Question No: 2 (Marks: 01) - Please choose the correct option

Total number of parameters required for **CreateProcess()** API is _____.

- A. 9
- B. 10**
- C. 11
- D. 12

Question No: 3 (Marks: 01) - Please choose the correct option

From which structure, we obtain the newly created child process's handle and ID?

- A. LPSTARTUPINFO structure
- B. LPPROCESS_INFORMATION structure**
- C. lpEnvironment Variable
- D. LPSECURITY_ATTRIBUTES

Question No: 4 (Marks: 01) - Please choose the correct option

_____ API is used to map a view of a file-mapping object into the

address space of a calling process.

- A. CreateViewOfFile()
- B. MapViewOfFile()**
- C. CreateFileMapping()
- D. OpenFileMapping()

Question No: 5 (Marks: 01) - Please choose the correct option

Which one is not a disadvantage of the static linking during compilations?

- A. A big executable file**
- B. Takes more space on disk
- C. Take less physical memory
- D. Consume more bandwidth

Question No: 6 (Marks: 01) - Please choose the correct option

In Implicit linking, the library functions are linked to the source code at _____.

- A. Written time
- B. Compile time
- C. Run time**
- D. Load time

Question No: 7 (Marks: 01) - Please choose the correct option

In which type of linking, the DLLs are not used?

- A. Static linking**
- B. Explicit Linking only
- C. Implicit linking only
- D. Both Implicit and Explicit linking

Question No: 8 (Marks: 01) - Please choose the correct option

The **CreateProcess()** API returns _____ handle(s) after successful execution.

- A. Zero
- B. One
- C. Two**

D. Three

Question No: 9 (Marks: 01) - Please choose the correct option

The return type of **ExitProcess()** API is _____.

Answer: **does not have a return type**

Question No: 10 (Marks: 01) - Please choose the correct option

9. The number of parameters required for **TerminateProcess()** API is _____.

A. 1

B. 2

C. 3

D. 4

Question No: 11 (Marks: 01) - Please choose the correct option

10. After loading a DLL explicitly, we can obtain the address of any entry point in DLL using the function _____.

A. GetModuleHandle

B. GetProcAddress()

C. LoadLibrary()

D. LoadLibraryEx()

Question No: 12 (Marks: 01) - Please choose the correct option

11. The number of parameters required for **CreateJobObject()** API is _____.

A. 0

B. 1

C. 2

D. 3

Question No: 13 (Marks: 01) - Please choose the correct option

3. The return type of **CreateThread()** API is _____.

- A. DWORD
- B. LPDWOR
- C. HANDLE**
- D. LPTSTR

Question No: 14 (Marks: 01) - Please choose the correct option

4. The default stack size for a thread is _____.

- A. 1 MB**
- B. 1 KB
- C. 1 Byte
- D. 1 bit

Question No: 15 (Marks: 01) - Please choose the correct option

5. The number of parameters required for **GetExitCodeThread()** API is _____.

- A. 0
- B. 1
- C. 2**
- D. 3

Question No: 16 (Marks: 01) - Please choose the correct option

5. TLS stands for _____.

- A. Thread Local Storage**
- B. Thread Last State
- C. Thread Local Size
- D. Timestamp Local Storage

Question No: 17 (Marks: 01) - Please choose the correct option

7. A unit of execution that is scheduled by the application rather than by the OS Kernel, is called as _____.

- A. Fiber
- B. Thread
- C. Process
- D. Mutex

Question No: 18 (Marks: 01) - Please choose the correct option

3. A fiber can obtain its starting address by using the API _____.
- A. CreateFiber()
 - B. GetFiberData()
 - C. GetCurrentFiber()**
 - D. ConvertThreadToFiber()

Question No: 19 (Marks: 01) - Please choose the correct option

9. The return type of CreateFiber() API is _____.
- A. VOID
 - B. LPVOID**
 - C. HANDLE
 - D. BOOL

Question No: 20 (Marks: 01) - Please choose the correct option

9. Which one of the following is not a Process or thread synchronization object?
- A. Fiber**
 - B. Critical Section
 - C. Mutex
 - D. Semaphore

Question No: 21 (Marks: 01) - Please choose the correct option

9. Interlocked functions apply to _____ integers.
- A. 32 bits signed**
 - B. 32 bits unsigned

- C. 64 bits signed
- D. 64 bits unsigned

Question No: 22 (Marks: 01) - Please choose the correct option

2. Which one of the following is not a requirement for correct thread code?

- A. Global Storage**
- B. Volatile Storage
- C. Memory Barrier
- D. Critical Code Region

Question No: 23 (Marks: 01) - Please choose the correct option

3. The return type of **CreateSemaphore()** API is _____.

- A. DWORD
- B. HANDLE**
- C. BOOL
- D. VOID

Question No: 24 (Marks: 01) - Please choose the correct option

4. The code region where only one thread can execute at a time is known as _____.

- A. program
- B. critical section**
- C. non – critical section
- D. Exception Handler

Question No: 25 (Marks: 01) - Please choose the correct option

5. Which one of the following APIs block a thread if another thread is in the section?

- A. InitializeCriticalSection
- B. EnterCriticalSection**

- C. DeleteCriticalSection
- D. LeaveCriticalSection

Question No: 26 (Marks: 01) - Please choose the correct option

5. Which one of the following numbers is good spin count for heap management according to MSDN?
- A. 1000
 - B. 2000
 - C. 3000
 - D. 4000**

Question No: 27 (Marks: 01) - Please choose the correct option

7. Which one of the following concepts limit the number of active, contending threads?
- A. Mutual Exclusion
 - B. Thread Contention
 - C. Semaphore Throttle**
 - D. Parallelism

Question No: 28 (Marks: 01) - Please choose the correct option

8. Which one of the following APIs returns a pointer to a TP_WORK structure?
- A. TrySubmitThreadpoolCallback
 - B. WaitForThreadpoolWorkCallbacks
 - C. CreateThreadpoolWork**
 - D. SubmitThreadpoolWork

Question No: 29 (Marks: 01) - Please choose the correct option

9. Thread synchronization is a process of handling situation when _____

or more threads need access to a shared resource.

- A. One
- B. Two**
- C. Three
- D. Four

Question No: 30 (Marks: 01) - Please choose the correct option

0. Which one of the following options best describe the mutex?
- A. is a binary mutex
 - B. does not have handles
 - C. must be accessed from only one process
 - D. can be accessed from multiple processes**

Question No: 31 (Marks: 01) - Please choose the correct option

1. What will happen if a non-recursive mutex is locked more than once?
- A. Starvation
 - B. Deadlock**
 - C. Critical Section
 - D. Semaphore

Question No: 32 (Marks: 01) - Please choose the correct option

2. What are the two kinds of semaphores?
- A. mutex & counting
 - B. binary & counting**
 - C. counting & decimal
 - D. decimal & binary

Question No: 33 (Marks: 01) - Please choose the correct option

- A. _____ function is supported only on the InterlockedExchange

3. processor.
- B. InterlockedExchangeAdd
 - C. InterlockedExchange**
 - D. InterlockedExchangeAcquire
 - E. lockedCompareExchange

Question No: 34 (Marks: 01) - Please choose the correct option

4. Instead of starting a new thread for every task to execute concurrently, the task can be passed to a _____.
- A. process
 - B. thread pool**
 - C. thread queue
 - D. CPU

Question No: 35 (Marks: 01) - Please choose the correct option

5. Each process has its own process affinity mask, which is a _____ vector.
- A. bit**
 - B. byte
 - C. Nibble
 - D. Word

Question No: 36 (Marks: 01) - Please choose the correct option

6. Which one of the followings is not a feature of named pipes?
- A. message-oriented
 - B. unidirectional
 - C. independent instances of pipes**
 - D. Networked clients can be access pipes by name

Question No: 37 (Marks: 01) - Please choose the correct option

7. Which one of the following is not a characteristic of Anonymous pipe?

- A. Character based
- B. Half Duplex
- C. Full Duplex**
- D. Communicate with Linux & UNIX both

Question No: 38 (Marks: 01) - Please choose the correct option

8. Which one of the followings has two handles: Read handle and Write handle?
- A. Named Pipes
 - B. Anonymous Pipes**
 - C. Unnamed Pipes
 - D. Interprocess Pipes

Question No: 39 (Marks: 01) - Please choose the correct option

9. The return type of **CreatePipe()** API is _____.
- E. DWORD
 - F. HANDLE
 - G. BOOL**
 - H. VOID

Question No: 40 (Marks: 01) - Please choose the correct option

10. Total number of parameters required for **CreateNamedPipe()** API is _____.
- A. 8**
 - B. 9
 - C. 10
 - D. 11