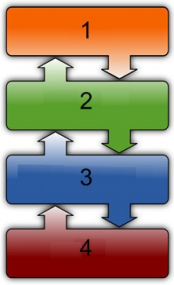
Sample of Multiple Choice Questions from Quiz 1, MidTerm, and Quiz 2:

Q1) An operating system is a program that:

A) manages the computer hardware and provides a basis for application programs
B) manages the application programs and provides a basis for computer hardware
C) manages both application programs and computer hardware
D) It provides an environment within which computer hardware can do work

Q2) In the drawing below of the Computer System Components, select the correct choice:

A) 1. Hardwar 2. OS 3. Applications 4. Users
B) 1. OS 2. Hardware 3. Applications 4. Users
C) 1. Users 2. OS 3. Applications 4. Hardware
C) 1. Users 2. Applications 3. OS 4. Hardware



Q3) _____ are associated with the operating system but not part of the kernel.

A) Application programs
B) System programs
C) Database programs
D) Office Programs

Q4) Ideally we want programs and data to reside in main memory, but it is not possible because (select two):

A) Main memory is too small to store all needed programs and data.
B) Main memory is used to execute application programs
C) Main memory loses its contents when power is turned off
D) Main memory is used to store operating system only.

Q5) Touch Screen devices require:

A) Heavy usage of mouse
B) Physical keyboard attachment
C) Action and selection is based on input command
D) None of the above

Q6) System calls are:

A) Programming interface
B) System Programs
C) Hardware interrupts
D) None of the above

Q7) The system programs that launch at boot time are called:

A) Kernel
B) Boot loader
C) Background services
D) BIOS

Q8) The operating system acts as recourse manager for the following resources

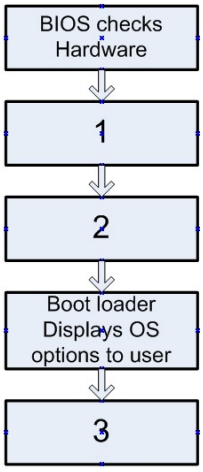
A) Processes, Programs, Applications and Users.
B) CPU time, Memory, File Storage, and I/O devices
C) Power Supply, fan, and case.
D) All the above

Q9) Application programs are:

A) associated with the operating system but not part of the kernel
B) all programs not associated with the operation of the system.
C) operating system core components
D) None of the above

Q10) In the drawing of the Computer Startup Operation, select the correct choice:

A) 1. BIOS Loads boot loader 2. boot loader loads MBR 3. MBR Loads OS
B) 1. BIOS Loads MBR 2. MBR Loads boot loader 3. Boot loader Loads OS
C) 1. BIOS Loads OS 2. OS Loads boot loader 3. boot loader loads MBR
D) 1. MBR Loads BIOS 2. BIOS Loads boot loader 3. Boot loader Loads OS



Q11) Caching is:

A) copying information into faster storage system permanently
B) copying information into faster storage system temporarily
C) copying information from faster storage system permanently
D) copying information from slower storage system temporarily

Q12) The _____ is the operating system core component that is running at all times on the computer.

A) Kernel
B) System Programs
C) Boot loader
D) CPU

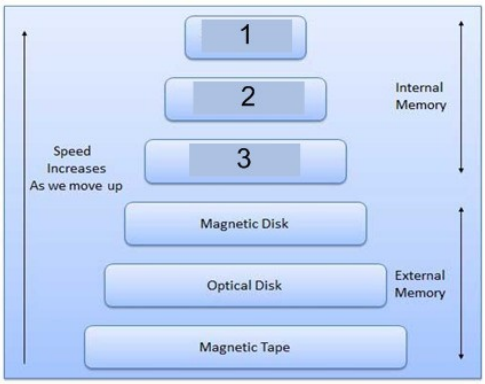
Q13) In the drawing below of the Storage Types, select the correct choice:

A) 1. CPU registers 2. Main Memory3. Cache Memory

B) 1. CPU registers 2. Cache Memory 3. Main Memory

C) 1. Main Memory2. Cache Memory 3. CPU registers

D) 1. Cache Memory 2. CPU registers 3. Main Memory



Q14) Hardware interrupts usually occur by:

A) starting a hardware device

B) sending a signal to the CPU from specified device.

C) executing the last instruction in an application

D) executing a system call from the application program

Q15) For each type of error, OS should:

A) take the appropriate action

B) perform computer restart

C) perform disk formatting

D) kill the process that caused the error

Q16) Three most common APIs are:

A) Windows, Unix, and Android.

B) Kernel, System programs and Application Programs.

C) Win32, POSIX, and Java

D) CPU, Memory and Hard Disk.

Q17) Select the option which is NOT an example of system calls under Process Control:

A) terminate

B) debug

C) get attributes,

D) allocate memory

Q18) When passing parameters from the program to the OS through the stack, parameters are:

A) pushed by OS and popped off by the program

B) loaded into registers by the program

C) stored in a memory block.

D) pushed by the program and popped off by OS

Q19) _____ are associated with the operating system but not part of the kernel.

A) Application programs
B) Database programs
C) System programs
D) Office Programs

Q20) For each type of error, OS should:

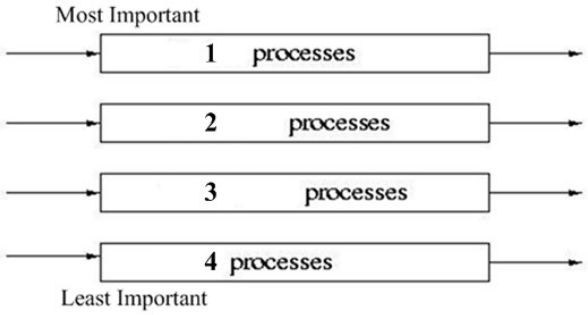
A) kill the process that caused the error
B) perform computer restart
C) perform disk formatting
D) take the appropriate action

Q21) When the process is loaded into memory, the _____section contains the program code:

A) Text
B) Data
C) Stack
D) Heap

Q22) In the diagram below for Multilevel Queue Scheduling, select the correct choice

A) 1. Batch 2. Background 3. Interactive 4. System
B) 1. System 2. Interactive 3. Background 4. Batch
C) 1. System 2. Interactive 3. Batch4. Background
D) 1. Interactive 2. System 3. Background 4. Batch



Q23) Caching is:

A) copying information into faster storage system permanently
B) copying information into faster storage system temporarily
C) copying information from faster storage system permanently
D) copying information from slower storage system temporarily

Q24) Which method is not used to pass parameters to the OS in a system call?

A) A block in memory
B) Registers
C) Flash disk
D) Stack

Q25) The Multi-threading benefit which is important for user interface is

A) Responsiveness
B) Resource Sharing
C) Economy
D) Scalability

Q26)In Priority Scheduling, internal priorities are assigned by

A) CPU
B) System Programs
C) OS
D) Users

Q27)In Symmetric multiprocessing, only one processor accesses the system data structures, while in Asymmetric multiprocessing each processor is self-scheduling

A) True
B) False

Q28) Which point is not considered a System Goal for the design of operating system?

A) cheap
B) easy to design,
C) easy to maintain
D) efficient

Q29) Dispatch latency is the amount of time

A) to execute a particular process
B) to stop one process and start another running
C) a process has been waiting in the ready queue
D) from when a request was submitted until the first response is produced, not output.

Q30) After loading, modern Operating Systems, it _____

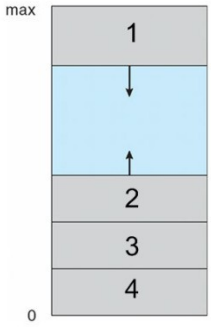
A) will ask the user to input a command
B) will wait for something to happen
C) will ask the user to select from options
D) will ask the user to click an icon

Q31) Touch Screen devices require:

A) Heavy usage of mouse
B) Physical keyboard attachment
C) Action and selection is based on input command
D) None of the above

Q32) In the drawing below of the sections of the Process Parts in Memory, select the correct choice:

A) 1. Stack 2. Heap 3. Data 4. Text
B) 1. Text 2. Stack 3. Data 4. Heap
C) 1. Heap 2. Data 3. Stack 4. Text
D) 1. Text 2. Data 3. Stack 4. Heap



Q33) In _____ scheduling, the ready queue is maintained as a circular queue

A) FCFS
B) SJF
C) Priority Scheduling
D) RR

Q34) The operating system acts as recourse manager for the following resources

A) Processes, Programs, Applications and Users.
B) CPU time, Memory, File Storage, and I/O devices
C) Power Supply, fan, and case.
D) All the above

Q35) Select the item which is not one of the operating-system service that are helpful to the system:

A) Protection and Security
B) Resource allocation
C) Anti-Virus
D) Accounting

Q36) After _____ the process will ask the OS to delete it.

A) exceeding allocated resources
B) running for a long time
C)executing last statement
D) being in ready queue for a short time

Q37)In Multilevel Queue scheduling, (select the most correct choice)

A) multiple separate queues can be established
B) jobs cannot switch from queue to queue –
C) Each queue has its own scheduling algorithm:
D) All the above

Q38)Placingmultiple processors on same physical chip, is called _____.

A) Multicore
B) Multiprogramming
C) Asymmetric multiprocessing
D) Multitasking

Q39) When passing parameters from the program to the OS through the stack, parameters are:

A) pushed by OS and popped off by the program
B) loaded in to registers by the program
C) pushed by the program and popped off by OS
D) stored in a memory block.

Q40) Inpreemptive scheduling

A) the process can not be interrupted in the middle of the execution
B) the CPU is allocated to the process till itterminates
C) there is no flexibility
D) the critical processes are allowed to access CPU as they arrive

Q41) Hardware interrupts usually occur by:

A) starting a hardware device
B) sending a signal to the CPU from specified device.
C) executing the last instruction in an application
D) executing a system call from the application program

Q42) Which item below is not an operating-system service that is helpful to the user?

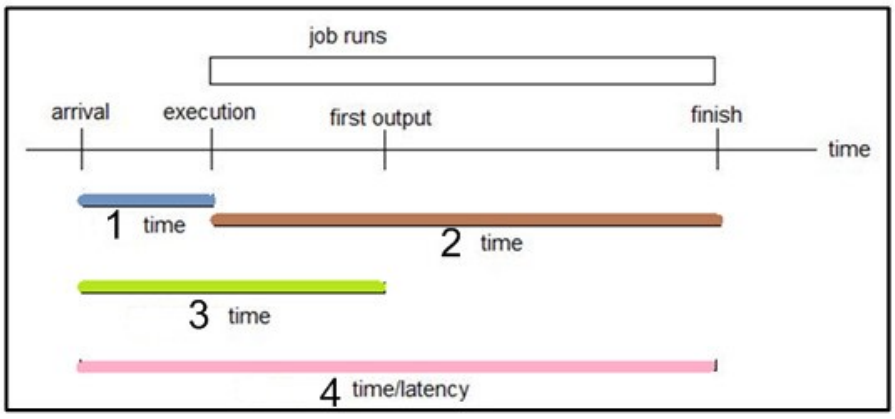
A) User interface.
B) Error Detection.
C) Program Execution.
D) Application Development.

Q43) Processes are identified by

A) IPC
B) API
C) CLI
D) PID

Q44) In the drawing below of the Scheduling Criteria – in Time Axis, select the correct choice:

A) 1. Wait 2. Run 3. Response 4. Turnaround
B) 1. Run 2. Wait 3. Response 4. Turnaround
C) 1. Wait 2. Run 3. Response 4. Turnaround
D) 1. Wait 2. Run 3. Turnaround 4. Response



Q45) Ideally we want programs and data to reside in main memory, but it is not possible because:

A) It is too small and loses its contents when power is turned off
B) It is used to execute application programs
C) It is too big for the Application data
D) It is used to store operating system only.

Q46) The system programs that launch at boot time are called:

A) Kernel
B) Boot loader
C) Background services
D) BIOS

Q47) _____ implies a system can perform more than one task simultaneously on multi-core system

A) Concurrency
B) Parallelism
C) Responsiveness
D) Scalability

Q48) In pre-emptive scheduling, the CPU is allocated to the process till it terminates or switches to waiting state (waiting for I/O).

A) True
B) False

Q49) _____ is when the system attempts to keep processes on the same processor but makes no guarantees

A) Push migration
B) Pull migration
C) Soft affinity
D) Hard affinity

Q50) System calls are:

A) Programming interface
B) System Programs
C) Hardware interrupts
D) None of the above

Q51) In Priority Scheduling, external priorities are assigned by

A) CPU
B) System Programs
C) OS
D) Users

Q52) Which point below is not a way for handling Deadlocks?

A) Prevention
B) Detection and Recovery
C) Transfer
D) Ignore

Q53) Which point below is not a condition for Deadlock?

A) Mutual Exclusion
B) Hold and Wait
C) Full Preemption
D) Circular Wait

Q54) ROM stores information permanently

A) True
B) False

Q55) Logical address is the address generated by the _____.

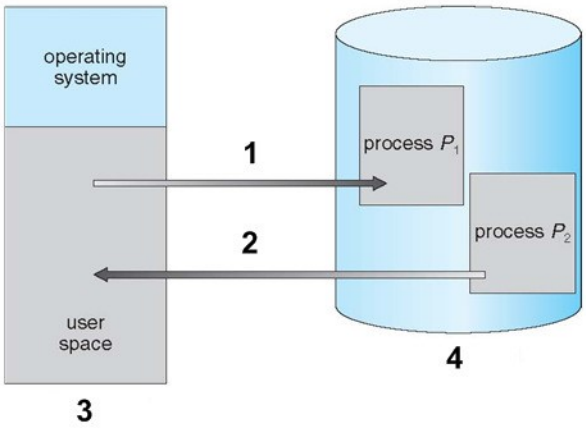
A) CPU
B) MMU
C) Cache Memory
D) I/O

Q56) _____ is a technique in which a process can be swapped temporarily out of memory to Backing Store and then brought back into memory for continued execution

A) Swapping
B) Contiguous Allocation
C) Segmentation
D) Paging

Q57) In the diagram below for Schematic View of Swapping, select the correct choice:

A) 1. Swap out 2. Swap in 3. Backing store 4. Main memory
B) 1. Swap in 2. Swap out 3. Main memory 4. Backing store
C) 1. Swap in 2. Swap out 3. Backing store 4. Main memory
D) 1. Swap out 2. Swap in 3. Main memory 4. Backing store



Group B [7 marks]

Q58) _____ are a set of blocked processes each holding a resource and waiting to acquire a resource held by another process.

A) Preemption
B) DeadLocks
C) Livelock
D) Hard affinity

Q59) Which point below is not a strategy for handling Deadlock?

A) Preemption
B) Rollback
C) Kill one or more processes
D) Circular Wait

Q60) _____ is a small-sized type of volatile computer memory that provides high-speed data access to a processor and stores frequently used computer code and data.

A) HDD
B) SSD
C) Cache Memory
D) CPU

Q61) In modern OSes the user program deals with real physical addresses only.

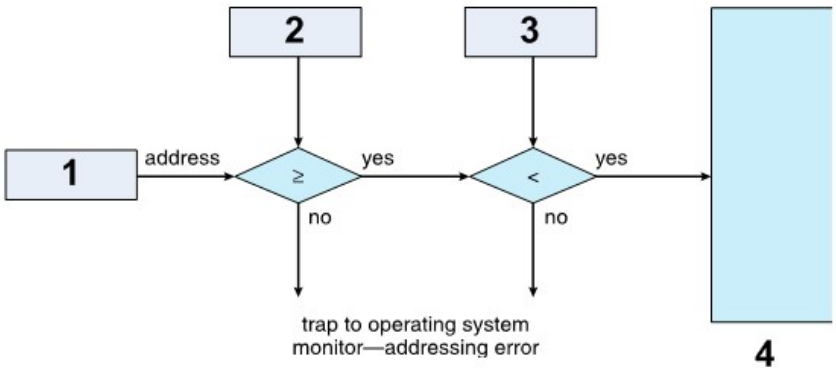
A) True
B) False

Q62) In _____ memory management approach each process should be contained in a single contiguous section of memory:

A) Swapping
B) Contiguous Allocation
C) Segmentation
D) Paging

Q63) In the diagram below for Hardware Address Protection, select the correct choice

A) 1. CPU 2. (base+limit) 3. base 4. memory
B) 1. memory 2. base 3. (base+limit) 4. CPU
C) 1. CPU 2. base 3. (base+limit) 4. memory
D) 1. CPU 2. base 3. limit 4. memory



Q64) Deadlock prevention involves:

A) Not to allow the system to get into a deadlocked state.

B) Abort a process or preempt some resources when deadlocks are detected.

C) Let deadlock happen and reboot when necessary

D) None of the above

Q65) _____ is the approach that both Windows and UNIX take to handle deadlocks.

A) Prevention

B) Detection and Recovery

C) Transfer

D) Ignore

Q66) Some advantages of Dynamic Linking and Shared Libraries are less program loading time and memory space.

A) True

B) False

Q67) In _____ memory management approach each process should be contained in a single contiguous section of memory:

A) Swapping

B) Contiguous Allocation

C) Segmentation

D) Paging

Q68) _____ is the size difference in memory when we divide memory to fixed partitions and the allocated memory may be slightly larger than requested memory.

A) External Fragmentation

B) Compaction

C) Internal Fragmentation

D) Paging

Q69) In the diagram below for Paging Hardware, select the correct choice:

A) 1. Physical address 2. Logical address 3. Page Table 4. Physical Memory

B) 1. Logical address 2. Physical address 3. Physical Memory 4. Page Table

C) 1. Physical address 2. Logical address 3. Physical Memory 4. Page Table

D) 1. Logical address 2. Physical address 3. Page Table 4. Physical Memory