Guide to Parallel Operating Systems with Windows 10 and Linux 3rd edition Carswell Test Bank

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TRUE/FALSE

1 : A desktop is the main workspace in a graphical user interface.
A : true
B : false

Correct Answer : A

2 : The DOS user interface is a command-line interface (CLI).
A : true
B : false

Correct Answer : A

3 : Most modern operating systems do not support multithreading and multitasking.
A : true
B : false

Correct Answer : B

4 : When utilizing the GUI interface, you cannot use a CLI.
A : true
B : false

Correct Answer : B

5 : A program with a slight amount of memory usage must have a memory leak.
A : true
B : false

Correct Answer : B

SHORT RESPONSE

6 : What main function is provided to all versions of Microsoft Windows by the Windows Driver Model (WDM)?

Correct Answer : WDM is a technology developed by Microsoft to create drivers that are source-code compatible for a number of Windows operating systems, including Windows 10. WDM works by channeling some of the work of the device driver into portions of the code that are integrated into the operating system. The WDM device driver becomes more streamlined with less code and works at greater efficiency.

7 : If you are studying to become a system administrator, why is it important to learn how to use the different command line interfaces available in most operating systems?

Correct Answer : When you are studying to become an administrator, you need to perform your tasks as efficiently as possible. Using the command line is efficient once you learn the commands. When administrating a Microsoft Windows server, the command-line interface is sometimes the proper tool.

8 : What is the basic idea behind open source software?

Correct Answer : When programmers can read, redistribute, and modify the source code for a piece of software, the software evolves. People improve it, adapt it, and fix bugs in it, often at astonishing speeds compared with the slow pace of conventional software development.

9 : What role does the virtual file system (VFS) perform within the CentOS 7 kernel?

Correct Answer : The VFS abstracts the details of the various hardware devices by presenting a common file interface to all devices. In addition, the VFS supports several file system formats that are compatible with other operating systems.

10 : What functions are provided by the Memory Manager (MM) within the CentOS 7 kernel?

Correct Answer : The MM permits multiple processes to securely share the machine's main memory system. In addition, the memory manager supports virtual memory that allows CentOS 7 to support processes that use more memory than is available in the system.

11 : What is multithreading and why is it advantageous?

Correct Answer : With multithreading (multiple threads executed in parallel), a program splits into two or more tasks that run simultaneously. A common use of threads is to have one pay attention to the graphical user interface while others do a long calculation in the background. As a result, the application more readily responds to a user's interaction.

12 : How does the operating system use paging to enhance the use of memory?

Correct Answer : To maximize its flexibility in managing memory, the OS can move pages of physical memory to and from a paging file onto a disk. When a page is moved into physical memory, the OS updates the page maps of the affected processes. When the OS needs space in physical memory, it moves the least recently used pages of physical memory to the paging file. The manipulation of physical memory by the OS is completely transparent to applications, which operate only in their virtual address spaces.

13 : Name and describe the system utility in Windows 10 that can be used to manage your system's hard drives and partitions.

Correct Answer : Disk Management is a system utility for managing hard drives and the partitions they contain. With Disk Management, you can initialize disks, create partitions, and format volumes with file systems such as exFAT, FAT32, or NTFS.

14 : Describe the functionality provided by the Processes tab within Task Manager in Windows 10.

Correct Answer : You can use the Processes tab to view the names of applications that are running and the background processes running on the computer. The tab displays usage statistics for the processor (CPU), memory, disks, and networks. You can then use this information to troubleshoot problems by determining which programs are using the most resources, such as processing or memory.

15 : Provide a high-level description of the CentOS 7 System Monitor.

Correct Answer : You can use System Monitor to review process activity in real time. The utility

displays a list of the most CPU-intensive tasks on the PC. System Monitor contains more tabs than just the Processes tab; it also contains Resources and File Systems tabs. From the Resources tab, you can review real-time information about CPU history, memory and swap history, and network history.

MULTIPLE CHOICE

16 : The graphical user interface was essentially created by what organization?
A : Apple
B : Digital Equipment Corporation
C : Xerox PARC
D : Microsoft

Correct Answer : C

17 : CentOS and other Linux operating systems owe their parentage to what operating system?
A : DOS
B : UNIX
C : GNU
D : Windows

Correct Answer : B

18 : The CentOS Linux distribution is derived from which other Linux operating system?
A : SUSE
B : GNOME
C : RHEL
D : Windows 10

Correct Answer : C

19 : What term best describes an operating system were all program modules share the same address space?
A : protected-mode
B : virtual
C : extended-mode
D : real-mode

Correct Answer : D

20 : Which Windows 10 user mode process exposes native OS system services to user applications?
A : system support processes
B : service processes
C : user applications
D : environment subsystem

Correct Answer : D

21 : Which Windows 10 kernel mode component provides basic OS services, such as memory management, process and thread management, and security?

A : executive
B : kernel
C : device drivers
D : hardware abstraction layer

Correct Answer : A

22 : Which CentOS 7 kernel subsystem enforces a policy that ensures processes will have fair access to the processor, while ensuring that necessary hardware actions are performed by the kernel on time?
A : Memory Manager (MM)
B : Virtual File System (VFS)
C : Process scheduler (SCHED)
D : Network interface (NET)

Correct Answer : C

23 : What method of sharing CPU time involves the OS executing an application for a particular period and according to its assigned priority?
A : cooperative multitasking
B : preemptive multitasking
C : voluntary multitasking
D : centralized multitasking

Correct Answer : B

24 : In what type of multiprocessing systems do several CPUs execute programs and distribute the computing load over a small number of identical processors?
A : cooperative
B : synchronous
C : symmetric
D : delegated

Correct Answer : C

25 : What type of address is a memory location that intervening hardware and software map to physical memory?
A : logical
B : physical
C : virtual
D : upper

Correct Answer : C

26 : What standard Linux utility is used to install and configure software on CentOS operating systems?
A : YUM
B : RPM
C : APT
D : RHEL

Correct Answer : A

27 : What type of driver does an antivirus agent use to intercept files that contain viruses?
A : function
B : virus
C : filter
D : object

Correct Answer : C

28 : Which term is used to describe the hierarchical structure CentOS uses to organize files?
A : containers
B : trees
C : organizers
D : directories

Correct Answer : D

29 : Windows-based operating systems support file-sharing traffic across a network by using which communications protocol?
A : Samba
B : Server Message Block (SMB)
C : TCP/IP
D : FTP

Correct Answer : B

30 : In Windows 10, what term is use to describe the hierarchical database that contains configuration entries?
A : Record
B : Index
C : Registry
D : Listing

Correct Answer : C

31 : What application can be used by a CentOS system administrator to edit text files which contain configuration files?
A : GNOME
B : Regedit
C : YUM
D : Vim

Correct Answer : D

32 : What utility can be used by a Windows 10 system administrator to view information about the system's performance?
A : Task Manager
B : Task Profiler
C : System Profiler
D : System Monitor

Correct Answer : A

33 : What utility can be used by a CentOS system administrator to review a summary of

information about the system?
A : Task Manager
B : Task Profiler
C : System Settings
D : System Profiler

Correct Answer : C

34 : When monitoring your system, you notice an unusually high CPU usage value that is consistently over 90 percent. What is the most likely reason for this concerning CPU state?
A : inadequate disk space
B : inadequate memory speed
C : inadequate RAM
D : inadequate processor speed

Correct Answer : D

35 : What utility, as a CentOS system administrator, are you most likely to use to monitor process activity in real time?
A : System Monitor
B : Task Manager
C : Resource Monitor
D : Process Manager

Correct Answer : A

36 : What free and open source software office suite can usually be found bundled with most Linux distributions?
A : Microsoft Office
B : WordPerfect
C : LibreOffice
D : Adobe Suite

Correct Answer : C

37 : Software that is available free of charge, but the software's owner still holds the copyright is referred to as what type of software?
A : Open source
B : Freeware
C : Free access
D : Trial

Correct Answer : B

38 : What Microsoft configuration management framework consists of a command-line shell and an associated scripting language built on the .NET framework?
A : DOS
B : YUM
C : Bash
D : PowerShell

Correct Answer : D

39 : What type of library consisting of common routines or data is used to support the development of Windows applications?
A : Open source library
B : dynamic link library
C : software library
D : application library

Correct Answer : B

40 : What kernel mode component on Windows 10, insulates the kernel and device drivers from the complexities of the hardware?
A : Device Drivers
B : Executive
C : Hardware abstraction layer
D : Application

Correct Answer : C

MATCHING

41 : Match each item with a statement below.

A : A suite of free software based on an interpreter of the Adobe PostScript and Portable Document Format (PDF) page description languages	A : Ghostscript
B : An application used to track the progress of and provide necessary resources for separate tasks running on a Windows computer	B : Task Manager
C : A memory location that intervening hardware and software map to physical memory	C : virtual address
D : The core of an operating system that manages memory, files, and peripheral devices	D : kernel
E : An automation platform and scripting language for Windows	E : PowerShell
F : A library of executable functions or data that can be used by a Windows 10 application	F : dynamic link library
G : A form of multitasking in which each process controls the length of time it maintains exclusive control over the CPU	G : cooperative multitasking
H : A utility in CentOS 7 that lets you review process activity in real time	H : System Monitor
I : A communications protocol used by Windows based operating systems to support resource sharing across a network	I : Server Message Block
J : A file system designed as a "next-generation" file system for Windows	J : Resilient File System

Correct Answer :
A : A

B : B

C : C

D : D

E : E

F : F

G : G

H : H

I : I

J : J