Cybersecurity Guided Notes (ANSWER KEY)

Lesson 4.1.3 - Shell and Script Environments

1. What are the two types of shells that a user can interact with an operating system?

   The user can interact with the OS through the graphical user interface (GUI) and the command line interface (CLI).

2. How does the user interact with CLI compared to GUI?

   The user inputs commands in the form of text in CLI while GUI uses graphics (mouse) as the medium of interaction

3. The Windows OS command ipconfig displays all current TCP/IP network configuration values and refreshes DHCP and DNS. Is this achieved using GUI or CLI? What is the name of the Windows environment used to run this command?

   Ipconfig is a text-based command and thus achieved using CLI. The name of this environment is Command Prompt

4. The Bash shell is the CLI for which system?

   The Unix system, which includes macOS and most Linux systems

5. Python is an example of a scripting language which allows the user to build scripts designed to achieve what purpose?

   Automate tasks performed by the user

6. PowerShell is a scripting language housed inside a shell environment. How do you think this makes it different from Command Prompt?

   Being a scripting language, PowerShell provides more utility to run higher-level commands by giving user access to pre-written scripts.

7. How does PowerShell compare to Command Prompt in terms of user control over Windows OS?

   PowerShell gives the user complete control over the system while Command Prompt an entry-level CLI allowing the user to interact with the OS at the basic level.

8. What does Secure Shell (SSH) allow the user to do?

   The user can securely and remotely access and control a separate system by connecting, logging into, and using the shell environment to gain remote control.

9. What does OpenSSL allow a user to control?

   OpenSSEL allows a user to remotely access the website environment and launch commands remotely.

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