1. **What is the role of kernel in operating system? (I.Q)**

**First of all**

**kernel is a heart of the operating system. Kernel has primarily four responsibilities.**

**-Device management**

**-memory management**

**-process management**

**-handling system calls**

1. **#nproc – this command uses check number of cpu in server**
2. **Nowadays it is better to use #!/bin/bash as shebang value since #!/bin/sh is not symlink to bash in some operating system and #!/bin/sh is symlink to #!/bin/dash. (I.Q)**
3. **In Linux, we use echo command to print something.**
4. **Always put comment in your script to understand your code.**
5. **Task: Write script to create one directory and create 2 files under same directory.**
6. **Best practice: write metadata in script. Example is as below,**

**##################**

**#Author: Swapnil Adivarekar**

**#Date: 04/08/2024**

**#**

**#script description**

**#version: v1**

**###################**

1. **set -x**

**(this line makes your script run in debug mode. It will print command name and its output)**

1. **set -e**

**(Exit the script when there is an error and wont get executed further program lines. It is good practice)**

1. **set -o pipefail**

**(This will exit your program if found error with line having pipe because set -e skips the error of line having pipe)**

1. **I.Q: what is output of below command.**

**#date | echo ‘this is’**

**Here it will print this is only. Because date is default system command and it sends output to STDIN and pipe will not receive the information from STDIN.**

**Pipe will work as expected If first command is ready to pass information or output to the next command.**

**STDIN, STDOUT, STDERR these are different channels or log flow on server.**

1. **I.Q: awk, cut, trim commands**

**#df -h | awk -F" " '{print $5}'**

1. **In Devops environment logs generally stored on S3 bucket, Azure blob storage or google storage. You can use curl command in script directly grep error logs from it.**

**I.Q: curl v/s wget.**

**Curl displays the information directly while wget will download the data and then you can grep the require details out of it.**

1. **Find command to search the file.**

**#find / -name pam.txt**