JT (CSE)
Nov 23

Junior Technician(CSE)

Descriptive Test (Level-2)

21.11.2023

Total Marks: **60**
Duration of Exam: **120 Mins**

- This question paper has 2 printed pages
- Contains two parts (Part-A and Part-B)
- Part-A carries 30 marks
- Part-B carries 30 marks

Part- A

- Attend any 10 questions out of 13
- Each question carries 3 marks

A01) What is the command in Linux systems to check various disk partitions?

A02) What is the command in Linux to mount a device /dev/sdb to /data/mysdb directory?

A03) Consider the scenario where Windows is not booting and just a blank screen with a blinking cursor is shown. What could be the reasons in terms of Boot configuration manager, Bootmgr and MBR?

A04) Which is the command for finding all files in the home directory and it's all sub directories having .pem extension?

A05) What is the primary purpose of ping? Briefly explain how they work with an example.

A06) Brief about ifconfig - along with simple examples of usage.

A07) What is a VLAN? Mention any three important design considerations of network design catered by VLAN features.

A08) Brief about **ip** utility in Linux - along with examples of common usage.

A09) What is the command for creation of a symbolic link by name def to /home/user1/data/subdir/mydir in the abc directory in the home?

A10) What is the command for copying a directory from /home/user1/data/subdir/mydir to /home/user1/data/mydir2 ?

A11) Write a bash shell script that kills specifically all python processes run by user1. Briefly explain your script.

A12) What do you know about autorun.enf?

A13) A very large file (say 10 GB) needs to be downloaded on a Linux computer. However the connection may get disconnected after every 2 hours. How do you accomplish the download task in such an environment?

Part- B

- Attend any 6 questions out of 10
- Each question carries 5 marks

B01) Consider the following statements for installing Ubuntu on top of Windows 10 on a BIOS system. Which is the most appropriate sequence of operations?

S1: Interactive Ubuntu OS loader; S2: Perform Format column; S3: Specify boot device in BIOS; S4: Connect Ubuntu boot device; S5: Create Linux partition; S6: Select correct partition for Format column; S7: Install Linux; S8: Open BIOS settings.

B02) Consider the following statements for installing Windows on top of Ubuntu. Which of the following sequences is most appropriately correct?

S1: install Windows into NTFS partition; S2: boot repair grub; S3: install Gparted on Ubuntu; S4: connect USB Ubuntu installation drive; S5: select Ubuntu boot device in BIOS; S6: connect USB Windows installation drive; S7: select Windows boot device in BIOS; S8: grub menu shows Windows option; S9: create primary NTFS partition.

B03) What is the primary purpose of traceroute / tracert commands? Briefly explain how it works with an example.

B04) What are some of the key features of /etc/fstab?

B05) What are the different WiFi standards that are deployable as of 2023?
Brief some of the prime considerations during the WiFi setup?

B06) What is DHCP? Explain the steps to configure DHCP on both DHCP client and DHCP server with an example.

B07) What is the purpose of DNS? Brief about the dns utilities with an example.

B08) Draw a layout of a desktop computer and indicate some of the most commonly known ports and components.

B09) Consider a Windows Hard Disk Drive. The contents of the same needs to be studied in a Linux machine. What are the steps and commands in Linux for accomplishing this?

B10) Briefly explain about any 5 prominent utilities in Linux for ip, network & port administration and monitoring - along with an example of their usage.