



Indian Institute of Technology Jodhpur

(Assistant Manager (ICT) - System Administration, Post Code 3510)

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॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

Time: 60 min

Trade Test With Answers

Maximum Marks: 40

Use of Internet is prohibited.

Name: _____

Application No.: _____

1. Ubuntu Installation

[12]

- Create Bootable ISO image to USB. Required software and iso image is provided in the desktop of the Windows.
- Installed Ubuntu Minimal installation with Volume Base. [Use the empty space of the machine HDD, Make dual boots system].
- Create User: iitj with Password: iitjodhpur

2. In the newly installed Ubuntu

- Mount USB with mount point /iitjusb-[Application number]

[3]

Solution:

```
sudo mkdir /iitjusb-[Application number]
sudo mount -t vfat /dev/sdb1 /iitjusb-[Application number]
```

- USB should be formatted with any file system that can be mountable in windows as well.

[3]

Solution: To show the USB drive among all storage partitions and volumes on your computer use: `lsblk`

You can also use: `df`

Suppose it may be `/dev/sdy1`. Unmount it with: `sudo umount /dev/sdy1`

To format drive with the FAT32 file system format: `sudo mkfs.vfat -F 32 /dev/sdy1`

To set a file system label for your pen drive in the process:

```
sudo mkfs.vfat -F 32 -n 'iitjusb-[Application number]' /dev/sdy1
```

- Change the current user password to iitjodhpur1 and assign the current user to a new group to iitj1.

[3]

Solution:

```
sudo passwd iitj
groupadd iitj1
sudo usermod -a -G iitj1 iitj
id username
```

4. Write a shell script to get the current date, time, username and current working directory. [7]

Solution:

```
1 #!/bin/bash
2 echo "Hello, $LOGNAME"
3 echo "Current date is `date`"
4 echo "User is `who i am`"
5 echo "Current directory `pwd`"
6 # chmod 755 userstats.sh
7 # ./userstats.sh
8
```

5. Create an OS backup shell script to run on the first Sunday of all months[Hours=19:00] [10]

Solution:

```
sudo tar czf /backup.tar.gz \ --exclude=/backup.tar.gz
\ --exclude=/dev \ --exclude=/mnt \ --exclude=/proc
\ --exclude=/sys \ --exclude=/tmp \ --exclude=/lost+found \ /
```

Crontab entry - e.g.

```
0 19 1-7 * 0 command.sh
Minutes=0
Hours=19
Day= 1st to 7th * = any month
0 = first day of the week (Sunday)
```

6. All the commands used should be saved in iitjusb-[Application number] with file name - iitjassestment-[Application number]. [2]