**Roll No…………….. Total No. of Pages:……**

**Linux System Administration**

**Time allowed: 90 Minutes Max. Marks: 40**

**General Instructions:**

* **Follow the instructions given in each section.**
* **Make sure that you attempt the questions in order.**

**SECTION-A (10\*1 mark=10 marks)**

***(All questions are compulsory)***

**Q1 The location for subdirectories for local programs and executables for user and**

**administrative commands is:**

**(a) /usr**

(b) /tmp

(c) /opt

(d) /mnt

(e) None of the above

**Q2 LILO**

(a) stands for Linux boot loader

(b) is the Linux boot process

**(c) is a tool used to boot the Kernel on x86 hardware**

(d) All of the above

(e) None of the above

**Q3 Which of the following tool is used to partition your hard drive?**

(a) mkfs

**(b) fdisk**

(c) fsck

(d) mount

(e) None of the above

**Q4 What command can be used to get information about yourself?**

(a) which

(b) pwd

(c) i/4

(d) who am i

**(e) None of the above**

**Q5 Which of the following file allows the user to change the GUI with networking?**

(a) graphics.target

(b) graphic.target

**(c) graphical.target**

(d) multi.target

(e) None of the above

**Q6 What command is used to halt a Linux system?**

(a) init 01

(b) Shutdow –t

(c) Shutdown - -y0

(d) Ctrl+Alt+Del

(**e) poweroff**

**Q7 CentOS developed & supported by**

(a) Sun Microsystems

(b) AT&T

**(c) Red Hat**

(d) Sun and AT&T jointly

**Q8 Which of these is not a Linux Flavor?**

**(a) FreeBSD**

(b) CentOs

(c) PopOs

(d) Suse

**Q9 Which of the following statement is FALSE?**

(a) Linux supports multiple users

(b) Linux is an open source operating system and the source code is shared

**(c) Shell perform process based operations with communication of process**

(d) Shell provides the feature of I/O Redirection

**Q10 Which of the following Linux flavor is from canonical ?**

(a) BSD

(b) Manjaro

**(c) Ubuntu**

(d) RHE

**SECTION-B (5\*2 mark=10 marks)**

***(All questions are compulsory)***

**Q11 Which among the following is used to write small programs to control Linux**

**functionalities?**

(a) Shell Commands

**(b) Shell Script**

(c) Filters

(d) C Language

**Q12 What control character signals the end of the input file?**  
(a) ctrl + a  
(b) ctrl + b  
(c) ctrl + c  
**(d) ctrl + d**

**Q13 How do the user gets the help about the command “cp”?**(a) help cp  
**(b) man cp**  
(c) cd ?

**Q14 CentOS7 Linux kernel is?**  
**(a) Monolithic**  
(b) micro  
(c) Exo  
(d) nano

**Q15 To increase the response time and throughput, the kernel minimizes the frequency of disk  
 access by keeping a pool of internal data buffer called**(a) Pooling  
(b) Spooling  
**(c) Buffer cache**  
(d) Swapping

**SECTION-C() (4x5 marks=20 marks)**

**Q16 How to create new file with content using echo**

**Ans**

#echo "This is some additional text inserted in filename" >filename.txt

**Q17 Astha lost her password ,help her to generate new password**

**Ans**

Step 1 – reboot the server

Step 2 – Press e in the GRUB2 boot screen to edit the GRUB2 command line

Step 3 – find the line that loads the kernel – this line generally begins with “linux16” or “linuxefi”

Step 4 – Remove the parameters “rhgb” and “quiet” from this line and, at the end of the line, add the string “rd.break enforcing=0”

Step 5 – Press Ctrl X and the system will boot with the edited parameters.

Step 6 – You must remount the root filesystem in read-write mode before you can make any changes to configuration details such as passwords. This is done with the following command:

# mount -o remount,rw /sysroot

Step 7 – You should now set your environment to the filesystem mounted on /sysroot, so that all commands pertain to that filesystem and its files:

#chroot /sysroot/

Step 8 – Now, enter the “passwd” command and follow instructions to change the root password:

#passwd yourUsername

Step 9 – Still within the chroot environment, remount your root filesystem as read-only. Then exit the chroot environment:

#mount -o remount,ro /

#exit

**Q18 Ashok want to list out all “.character” files from centOS7,help him to list out character files**

**Ans**

**>su**

**#ls -l /\* |grep ^s** ^c

**Q19 Aryan have 30 GB HDD help her to make 3 equal primary partition with file system ext4 and ntfs**

**Ans**

>su

# fdisk -l

# fdisk -l /dev/sdb

# fdisk /dev/sdb

# Command (m for help): m

**Creating a Partition : Use the 'n' command to create a new primary partition (p for**

**primary)**

**Next, specify the sector of the disk you want the partition to start at. Press**

**Enter to accept the default sector, which is the first free sector on the disk.**

**Last, specify the last sector of the partition on the disk. If you want to use**

**up all available space after the initial sector, just press Enter. You can also**

**specify a specific size, such as +5G for a five gigabyte partition or +512M for**

**a 512 megabyte partition. If you don’t specify a unit after the + sign, fdisk**

**uses sectors as the unit.**

**Viewing the Partition Table : Use p to print the current partition table to the**

**terminal from within command mode.**

**Writing Changes : Use 'w' to write the changes**

**Formatting a Partition :**

# mkfs .ext4 /dev/sdb1

# mkfs .ext4 /dev/sdb2

# mkfs .ntfs -f /dev/sdb1