General Instructions:

* Follow the instructions given in each section.
* Do not write anything on the question paper, except your roll no.
* Make sure that you attempt the questions in order.

**Section - A**

**(Q 1 to 10: Each question carries 1 mark)**

Q.1. What is the role of the Shell in Linux?  
a) GUI component  
b) **Interpreter between the user and the kernel**  
c) File Manager  
d) Internet browser

Q.2What is the history behind the Linux operating system?

1. Linux was created by Microsoft in the 1980s.
2. **Linux was created by Linus Torvalds in 1991 as a free, open-source alternative to Unix**
3. Linux was created by Apple in the 1990s.
4. Linux was created by Google in the 2000s

Q.3. Identify the default file system type of Linux

1. FAT
2. **ext4**
3. ext3
4. ext2
5. None

Q.4 What does the redirection symbol "<" do in Linux?

1. Display the contents of a file
2. Append the output of a command to a file
3. Write the output of a command to a file
4. **Take content as an Input**

**Q.5.** What command can be used to display the contents of a file page by page in a terminal in Linux?

1. **less**
2. cat
3. more
4. head

Q.6What is the default file type in the Linux file system?

1. **Regular file**
2. System file
3. Directory
4. Executable file

**Q.7.** How can you see hidden files in the current directory using the 'ls' command?

1. **Use the 'ls -a' command**
2. Use the 'ls -l' command
3. Use the 'ls -h' command
4. Use the 'ls -r' command

Q.8. What is the "sed" command used for in the terminal in Linux?

1. To sort a file
2. To search for a pattern in a file
3. **To edit a file in a non-interactive way**
4. To count the number of lines in a file

**Q.9.** What is another popular text editor in terminal in Linux besides vi and vim?

1. **nano**
2. pico
3. gedit
4. emacs

Q.10What is the command used to change file permissions in a terminal in Linux?

1. **chmod**
2. chown
3. chgrp
4. chfile

**Section - B**

**(Q 11 to 15 : Each question carries 2 marks)**

Q.11. chmod go+r file.txt this command will?

1. remove read and write permission for group and owner
2. set read and write permission for group & owner
3. remove read permission for group & owner
4. **set read permission for group & owner**

**Q.12** Select the correct command to hide a file

1. **mv file .file**
2. mv .file file
3. mv .file file.
4. mv .file .file

Q.13 Locate -c “\*.txt” command will results in?

1. list all files present in pwd ending with extension .txt
2. list all files present in entire system ending with extension .txt
3. **display the count of files ending with extension .txt in entire system**
4. display the count of files present in pwd ending with extension .txt

Q.14. To check the list of files which are updated within last 30 minutes

1. find -30 mmin
2. find mmin -30
3. **find . -mmin -30**
4. find . -30 –mmin

Q.15. To display index number in first column we use \_\_\_\_\_\_ command.

1. ls -p
2. **ls -li**
3. ls -r
4. ls -R

**Section – C**

**(Q 16 to 19: Each question carries 5 marks)**

Q.16. Change the permissions on myfile.txt so that: ( 1 mark each )

1. Others cannot read it.
2. Group members can execute it.
3. Others cannot read or write it.
4. Group members & Others can read and write it.
5. Everyone has full access.

Q.17 Consider the directory structure and files in the system.

Assume that the present working directory is /home/user1

Write commands for the following operations.

a) Create a directory with the name “bsccollege” and inside this directory create three directories “firstyear”, “secondyear” and “thirdyear”. (2 marks)

b) Inside the directory “firstyear”, create a text file with the name“studentnames.txt” and enter 5 student names. (1 mark)

ajay

harish

kumar

sunil

paresh

c) Display the contents of the file “studentnames.txt”. (1 mark)

d) Inside the directory “thirdyear”, create an empty file with the name “placementdetails”. (1 mark)

Q.18. A file “names.txt” has the following contents :

Sumit Bhardwaj

Rajan Gupta

Suresh Malhotra

Keerti

Anita Deshmukh

Srishti K Roy

Write the commands to display the following:

A. Number of lines in the file (1 Marks)

B. All names which do not have surname or middle name (Single word:Keerti) (2 Marks)

C. All Names that

Q19. Explain the functionality of kernel and shell in linux.