Part A, B, C, D, E

Part A :-

What will the following commands do

1) echo "Hello world"

→ echo is used to print "Hello world!"
echo is used to display a message or output text

2) name = "Productive"

→ variable name = name
it stores "Productive" value

3) touch file.txt

→ touch instruction create an empty file named file.txt in the current directory.
If file already exist. Its last modified time will be updated

4) ls -a

→ It is used to list all files & directories in the current working directory, including hidden files & directories

5) rm file.txt

→ It is command which is used to delete the file named file.txt from the current working directory

6) cp file1.txt file2.txt

→ It is commond which is used to copy the contents of file1.txt to file2.txt

7) mv file.txt/path/to/directory

→ ~~the command~~ This command is used to move the file txt. from its current location to the specified directory

8) chmod 755 script.sh

chmod → change mode
755 → 7 = 2+3+4 = read + write execute = owner
5 = read + execute (2+3) → group
5 = read + execute (2+3) → other
→ This command is commonly used to give the script owner full control of the script

9) grep "pattern" file.txt
→ This command is used to search for a specific pattern inside the file file.txt.
grep :- command which search for pattern within files
"pattern" - text

Daylight
10) kill PID
→ kill → This is the command used to send a signal to a process, typically to terminate it
PID → unique identifier assigned to each running process on the system
↳ Process ID

11) mkdir mydir && cd mydir && touch file.txt && echo "Hello world!" > file.txt && cat file.txt
→

→ mkdir mydir :- It creates directory of name mydir

→ cd mydir :- It changes current working directory to mydir

→ touch file.txt :- creates empty file named as file.txt

→ echo "Hello world" > file.txt :- writes the text "Hello world!" to file.txt

→ cat file.txt :- Display the content of file named as file.txt

→ Final O/P :-

① In new working directory named mydir.

② Inside mydir, a file named file.txt containing the text "Hello world".

③ The contents of file.txt printed to the terminal.

12) ls -l | grep ".txt".

→ ls -l → detailed information for each file or directory

→ | → The pipe (|) takes the output of the ls -l command & pass it as i/p to the grep command.

→ "grep ".txt"

grep searches for lines containing the pattern .txt.

13) cat file1.txt file2.txt | sort | uniq

→ The cat command combines the contents of the two files

→ the sort command sorts the lines alphabetically

→ uniq command removes duplicate lines, leaving only one occurrence of each unique line

14) ls -l | grep "^d"

→ This command lists only the directories (those starting with d in the permissions column) in the current directory

→ files will not be shown

15) grep -r "pattern" /path/to/directory/

→ It will search specified pattern in all files within the directory & subdirectories & display matching lines

16) cat file1.txt file2.txt | sort | uniq -d

→ cat file combine the contents of file1 & file2

→ sort the combined content alphabetically

→ show only the lines that appear more than once in the sorted output (duplicate)

17) chmod 644 file.txt

6 = 2+0+4	read + execute	→ owner
= 0+0+4	execute	→ group
= 0+0+4	execute	→ other

owner can read & execute file
group & other can only execute file

18) cp -r source_directory destination_directory

It copies the entire directory from source directory to destination directory

19) find /path/to/ search -name "*.txt"
→ This searches recursively for all files ending in .txt starting from the /path/to/search directory

20) chmod u+x file.txt
chmod → change mode
u+x → user add execute → means add the execute permission from the user

21) echo $PATH
It shows the directories in which the system looks for executable files.