

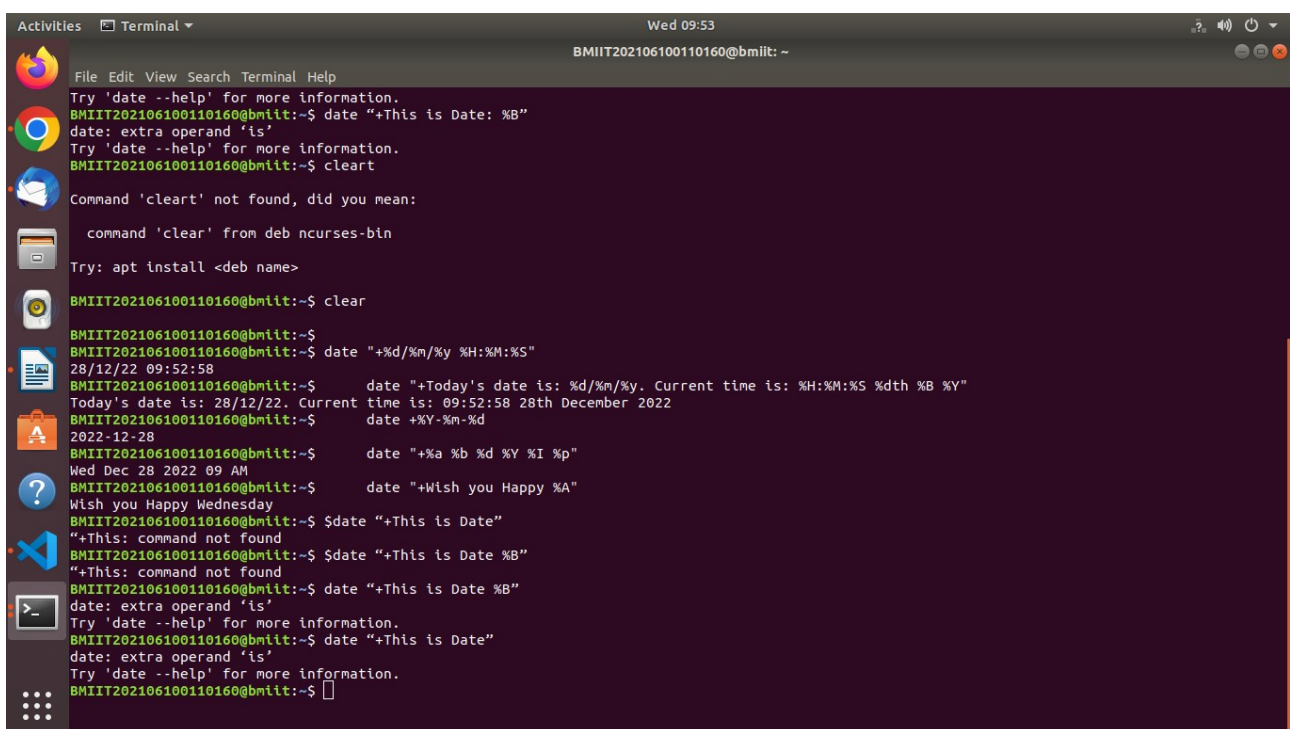
Que1

Write a date command to display date in following format:

1. dd/mm/yy hh:mm:ss
2. Today's date is: 01/04/14. Current time is: 14:50:03 04th January 2015
3. 2015-02-04
4. Sat Jan 4 2015 5 PM
5. Wish you happy Monday
6. What will be the output of following commands?
 - a. `$date "+This is Date"`
 - b. `$date "+This is date: %B"`

Ans

1. `date "+%d/%m/%y %H:%M:%S"`
2. `date "+Today's date is: %d/%m/%y. Current time is: %H:%M:%S %dth %B %Y"`
3. `date +%Y-%m-%d`
4. `date "+%a %b %d %Y %I %p"`
5. `date "+Wish you Happy %A"`
6. a. This is Date
b. This is date: January



```
Activities Terminal Wed 09:53
BMIIIT202106100110160@bmlit: ~
File Edit View Search Terminal Help
Try 'date --help' for more information.
BMIIIT202106100110160@bmlit:~$ date "+This is Date: %B"
date: extra operand 'is'
Try 'date --help' for more information.
BMIIIT202106100110160@bmlit:~$ clear
Command 'clear' not found, did you mean:
  command 'clear' from deb ncurses-bin
Try: apt install <deb name>
BMIIIT202106100110160@bmlit:~$ clear
BMIIIT202106100110160@bmlit:~$ date "+%d/%m/%y %H:%M:%S"
28/12/22 09:52:58
BMIIIT202106100110160@bmlit:~$ date "+Today's date is: %d/%m/%y. Current time is: %H:%M:%S %dth %B %Y"
Today's date is: 28/12/22. Current time is: 09:52:58 28th December 2022
BMIIIT202106100110160@bmlit:~$ date +%Y-%m-%d
2022-12-28
BMIIIT202106100110160@bmlit:~$ date "+%a %b %d %Y %I %p"
Wed Dec 28 2022 09 AM
BMIIIT202106100110160@bmlit:~$ date "+Wish you Happy %A"
Wish you Happy Wednesday
BMIIIT202106100110160@bmlit:~$ $date "+This is Date"
"+This: command not found
BMIIIT202106100110160@bmlit:~$ $date "+This is Date %B"
"+This: command not found
BMIIIT202106100110160@bmlit:~$ date "+This is Date %B"
date: extra operand 'is'
Try 'date --help' for more information.
BMIIIT202106100110160@bmlit:~$ date "+This is Date"
date: extra operand 'is'
Try 'date --help' for more information.
BMIIIT202106100110160@bmlit:~$
```

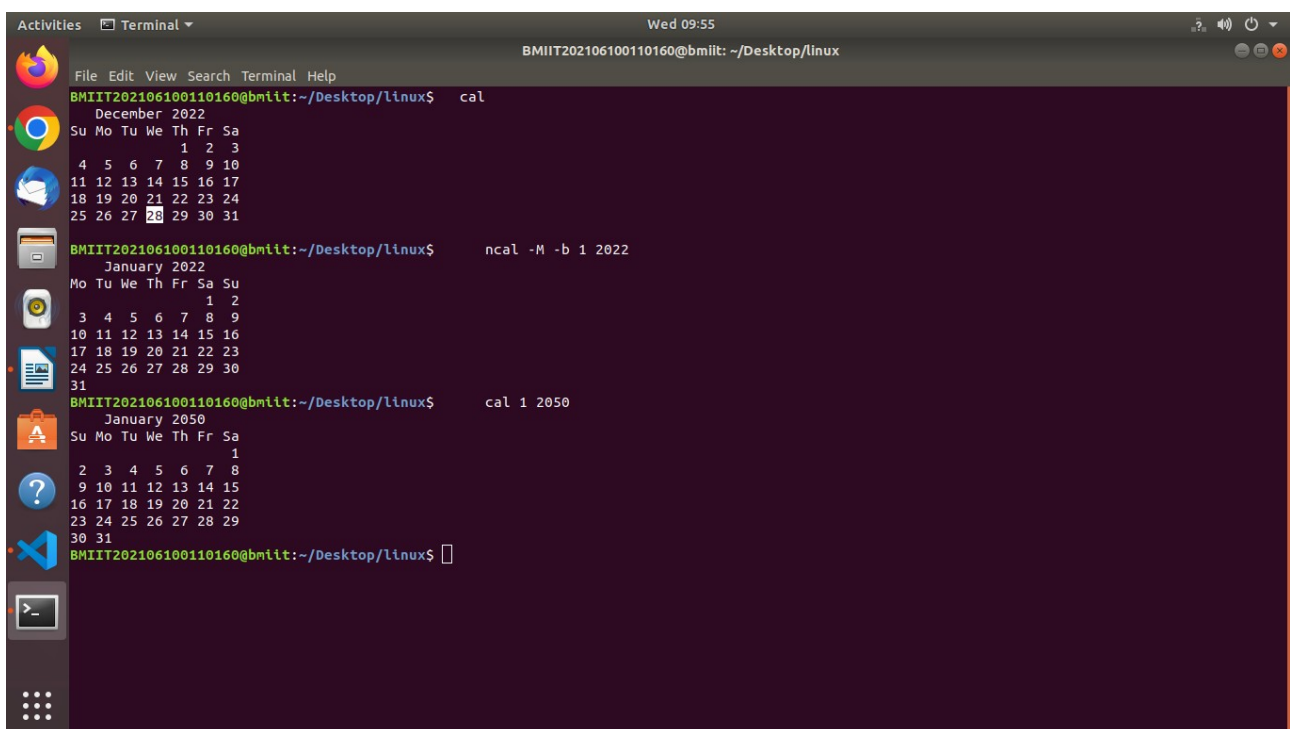
Que2

Write a cal command to do following:

1. To display calendar of current month. (don't give argument as 2017)
2. Display calendar for single month and Monday as the first day of week.
3. Display calendar of January month of 2050 year.

Ans2

1. `cal`
2. `ncal -M -b 1 2022`
2. `cal 1 2050`



The screenshot shows a terminal window with the following commands and their outputs:

```
BMIIIT202106100110160@bmiit: ~/Desktop/linux$ cal
December 2022
Su Mo Tu We Th Fr Sa
      1  2  3
 4  5  6  7  8  9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28 29 30 31

BMIIIT202106100110160@bmiit:~/Desktop/linux$ ncal -M -b 1 2022
January 2022
Mo Tu We Th Fr Sa Su
      1  2
 3  4  5  6  7  8  9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31

BMIIIT202106100110160@bmiit:~/Desktop/linux$ cal 1 2050
January 2050
Su Mo Tu We Th Fr Sa
      1
 2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31
```

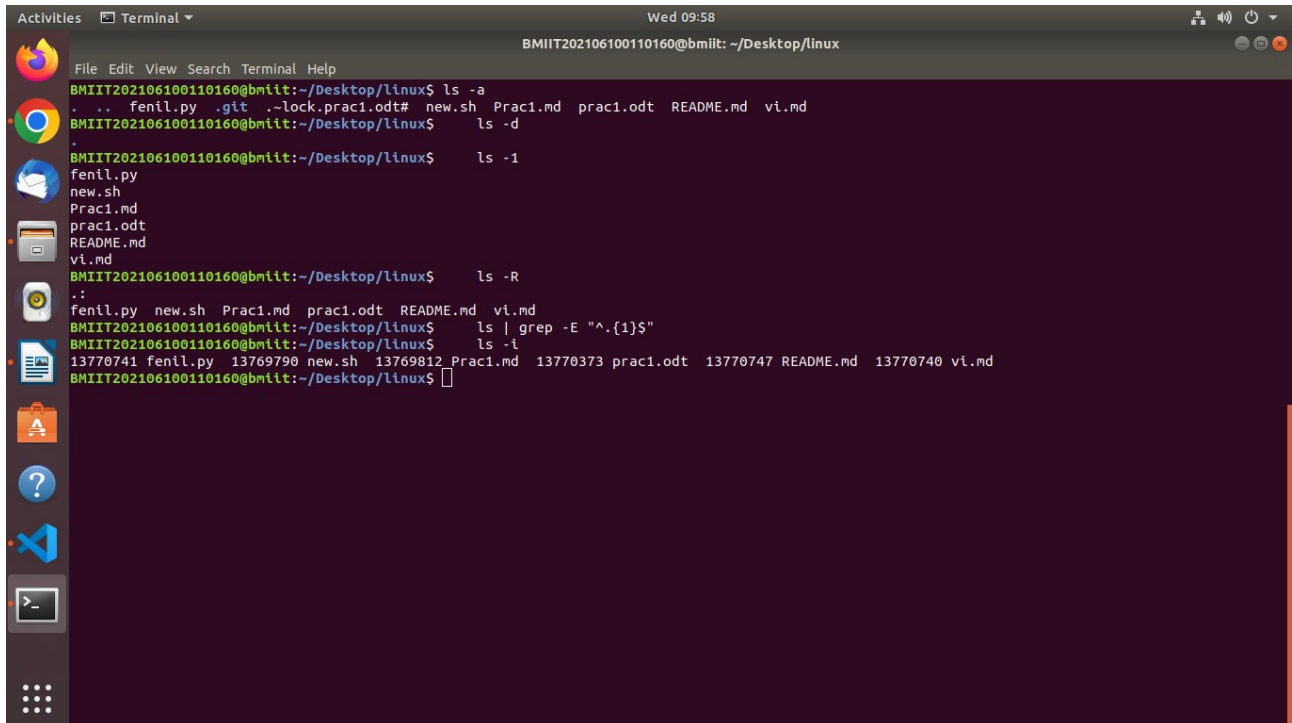
Que3

Write ls command for following:

1. Display all files names including hidden files.
2. Display current working directory name.
3. Display all file names in one column.
4. List all current directory recursively.
5. List all file names having only one character length.
6. List filenames with their inode numbers

Ans3

1. `ls -a`
2. `ls -d`
3. `ls -l`
4. `ls -R`
5. `ls | grep -E "^.{1}$"`
6. `ls -i`



```
Activities Terminal Wed 09:58
BMIIIT202106100110160@bmiit: ~/Desktop/linux
File Edit View Search Terminal Help
BMIIIT202106100110160@bmiit:~/Desktop/linux$ ls -a
.  ..  fenil.py  .git  .lock.prac1.odt#  new.sh  Prac1.md  prac1.odt  README.md  vi.md
BMIIIT202106100110160@bmiit:~/Desktop/linux$ ls -d
.
BMIIIT202106100110160@bmiit:~/Desktop/linux$ ls -l
fenil.py
new.sh
Prac1.md
prac1.odt
README.md
vi.md
BMIIIT202106100110160@bmiit:~/Desktop/linux$ ls -R
.:
fenil.py  new.sh  Prac1.md  prac1.odt  README.md  vi.md
BMIIIT202106100110160@bmiit:~/Desktop/linux$ ls | grep -E "^.{1}$"
BMIIIT202106100110160@bmiit:~/Desktop/linux$ ls -i
13770741 fenil.py  13769790 new.sh  13769812 Prac1.md  13770373 prac1.odt  13770747 README.md  13770740 vi.md
BMIIIT202106100110160@bmiit:~/Desktop/linux$
```

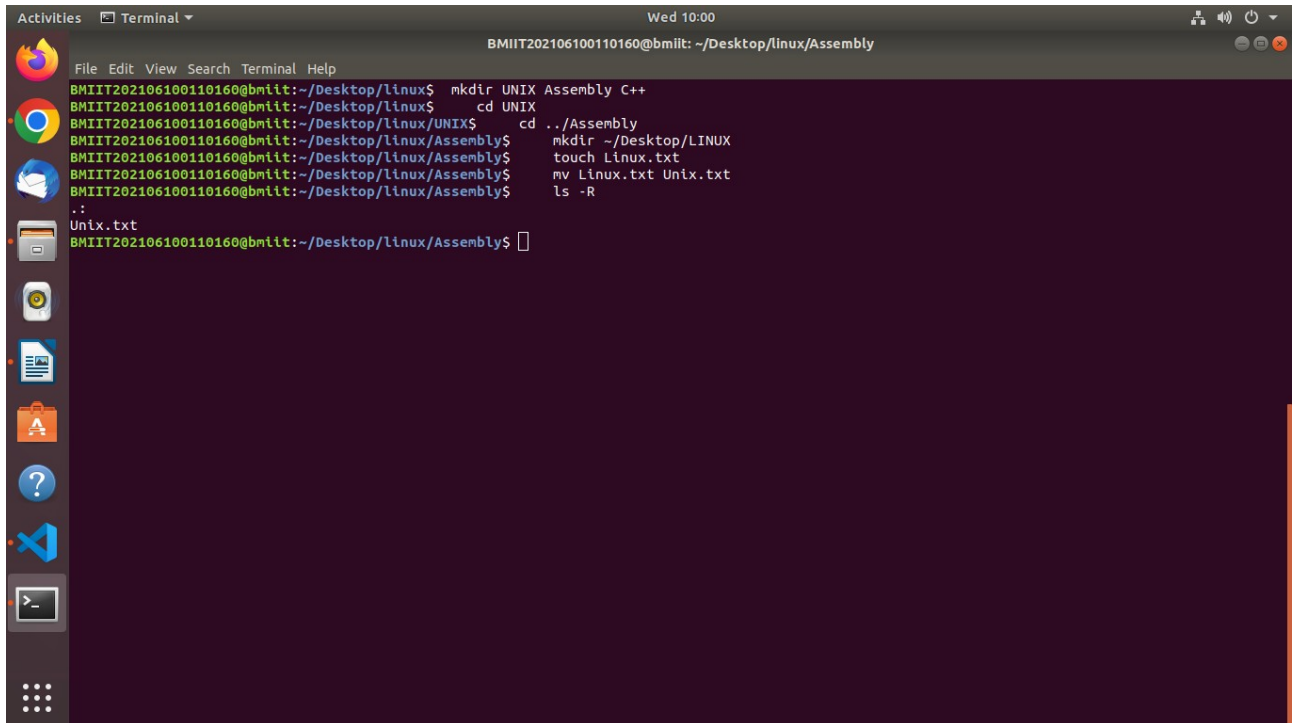
Que4

Do as directed.

1. Create three directories named UNIX, Assembly and C++ under your Home directory.
2. Write command to move into UNIX from current directory by writing single command.
3. Write command to move directly to Assembly by writing single command. (Your current directory is UNIX).
4. Create a directory named LINUX in Desktop directory by writing single command. (Your current directory is UNIX and do not use `cd` command.)
5. Write command to create text file named "Linux.txt"; Rename the file "Linux.txt" to "Unix.txt".
6. Recursively list all of the directories you created in Home directory by writing single command. (Your current directory is UNIX and do not use `cd` command).

Ans4

1. mkdir UNIX Assembly C++
2. cd UNIX
3. cd ../Assembly
4. mkdir ~/Desktop/LINUX
5. touch Linux.txt
mv Linux.txt Unix.txt
6. ls -R



```
BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly
File Edit View Search Terminal Help
BMIIIT202106100110160@bmiit:~/Desktop/linux$ mkdir UNIX Assembly C++
BMIIIT202106100110160@bmiit:~/Desktop/linux$ cd UNIX
BMIIIT202106100110160@bmiit:~/Desktop/linux/UNIX$ cd ../Assembly
BMIIIT202106100110160@bmiit:~/Desktop/linux/Assembly$ mkdir ~/Desktop/LINUX
BMIIIT202106100110160@bmiit:~/Desktop/linux/Assembly$ touch Linux.txt
BMIIIT202106100110160@bmiit:~/Desktop/linux/Assembly$ mv Linux.txt Unix.txt
BMIIIT202106100110160@bmiit:~/Desktop/linux/Assembly$ ls -R
.:
Unix.txt
BMIIIT202106100110160@bmiit:~/Desktop/linux/Assembly$
```

Que5

Write a bc command for following:

1. To evaluate "21/2". Answer should contain 5 decimal places.
2. To convert 42 from decimal to hexadecimal.
3. To print digits from 1 to 10 using for loop.
4. To convert 1100 from binary to decimal.
5. To print digits from 11 to 20 using while loop.

Ans5

1. echo "scale=5; 21/2" | bc
2. echo "obase=16; 42" | bc
3. for number in {1..10}
do echo \$number
done
4. echo "ibase=2; 1100" | bc

```
5. for number in {11..20}
do echo $number
done
```

The screenshot shows a terminal window titled 'Terminal' with the following commands and outputs:

```

BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly$ touch Linux.txt
BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly$ mv Linux.txt Unix.txt
BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly$ ls -lR
.:
Unix.txt
BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly$ echo "scale=5; 21/2" | bc
10.50000
BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly$ echo "obase=16; 42" | bc
2A
BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly$ for number in {1..10}
> do echo $number
> done
1
2
3
4
5
6
7
8
9
10
BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly$ echo "lbase=2; 1100" | bc
12
BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly$ for number in {11..20}
> do echo $number
> done
11
12
13
14
15
16
17
18
19
20
BMIIIT202106100110160@bmiit: ~/Desktop/linux/Assembly$

```

Que6

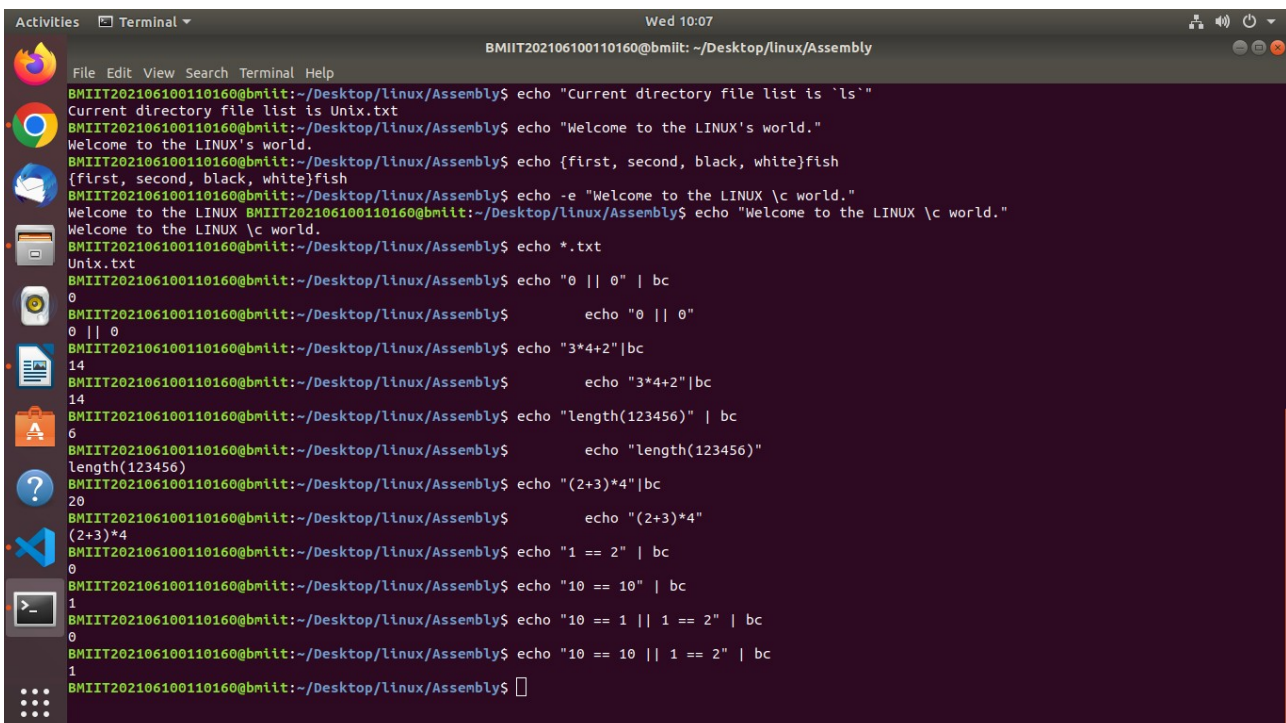
Solve following using echo command:

- Write the output of a command:
\$ echo "Current directory file list is `ls`" (` is back quote)
- Write an interpretation of a command:
\$ echo Welcome to the LINUX's world.
- Write the output of a command:
echo {first, second, black, white}fish
- Write an interpretation of a command:
echo -e "Welcome to the LINUX \c world."
echo "Welcome to the LINUX \c world."
- Write the output of a command: echo *.txt
- Write output and interpretation of:
echo "0 || 0" | bc
echo "0 || 0"
- Write output and interpretation of:
echo "3*4+2"|bc
echo "3*4+2"|bc
- Write output and interpretation of:
echo "length(123456)" | bc
echo "length(123456)"
- Write output of and interpretation:
echo "(2+3)*4"|bc
echo "(2+3)*4"
- Write output and interpretation of following commands:
 - echo "1 == 2" | bc
 - echo "10 == 10" | bc

- c. `echo "10 == 1 || 1 == 2" | bc`
d. `echo "10 == 10 || 1 == 2" | bc`

Ans6

1. Current directory file list is java linux
2. `echo "Welcome to the LINUX's world."`
3. `{first, second, black, white}fish\`
- 4.a. Welcome to the LINUX
b. Welcome to the LINUX \c world
5. test.txt
6. a. 0
b. `0 || 0`
7. a. Command 'bc*' not found, did you mean:
command 'bc' from deb bc
command 'bcp' from deb libboost1.65-tools-dev
command 'bcp' from deb libboost1.62-tools-dev
command 'bcc' from deb bcc
command 'bch' from deb bikeshed
command 'bcd' from deb bsdgames
b. 14
8. a. 6
b. `length(123456)`
9. a. 20
b. `(2+3)*4`
10. a. 0
b. 1
c. 0
d. 1



```
Activities Terminal Wed 10:07
BMIT202106100110160@bmit: ~/Desktop/linux/Assembly
File Edit View Search Terminal Help
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "Current directory file list is `ls`"
Current directory file list is Unix.txt
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "Welcome to the LINUX's world."
Welcome to the LINUX's world.
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo {first, second, black, white}fish
{first, second, black, white}fish
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo -e "Welcome to the LINUX \c world."
Welcome to the LINUX BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "Welcome to the LINUX \c world."
Welcome to the LINUX \c world.
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo *.txt
Unix.txt
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "0 || 0" | bc
0
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "0 || 0"
0 || 0
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "3*4+2"|bc
14
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "3*4+2"|bc
14
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "length(123456)" | bc
6
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "length(123456)"
length(123456)
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "(2+3)*4"|bc
20
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "(2+3)*4"
(2+3)*4
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "1 == 2" | bc
0
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "10 == 10" | bc
1
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "10 == 1 || 1 == 2" | bc
0
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$ echo "10 == 10 || 1 == 2" | bc
1
BMIT202106100110160@bmit:~/Desktop/linux/Assembly$
```


Que7

Write ls & echo command to display following list of files:

File names:

1. Having digit at the end of filename.
 2. First characters should be capital rest of could be anything.
 3. Having three consecutive alphabets.
 4. Having "?" and "*" characters in filename.
 5. Minimum length is 5 characters.
 6. First character may be in uppercase or lowercase & second character must in uppercase.
- Having first and last character must be capital letter.

Ans7

1. `ls | grep -E "[0-9]$"`
2. `ls | grep -E "^[A-Z]"`
3. `ls | grep -E "[a-zA-Z]{3}"`
4. `ls | grep -E "[?*"`
5. `ls | grep -E "^\{5\}$"`
6. `ls | grep -E "^[a-zA-Z][A-Z]"`
7. `ls | grep -E "^[A-Z].*[A-Z]$"`

