

**ASSIGNMENT 1**  
**Roll no 193079024**  
**Name :Sarvesh Kale**

Q1.)

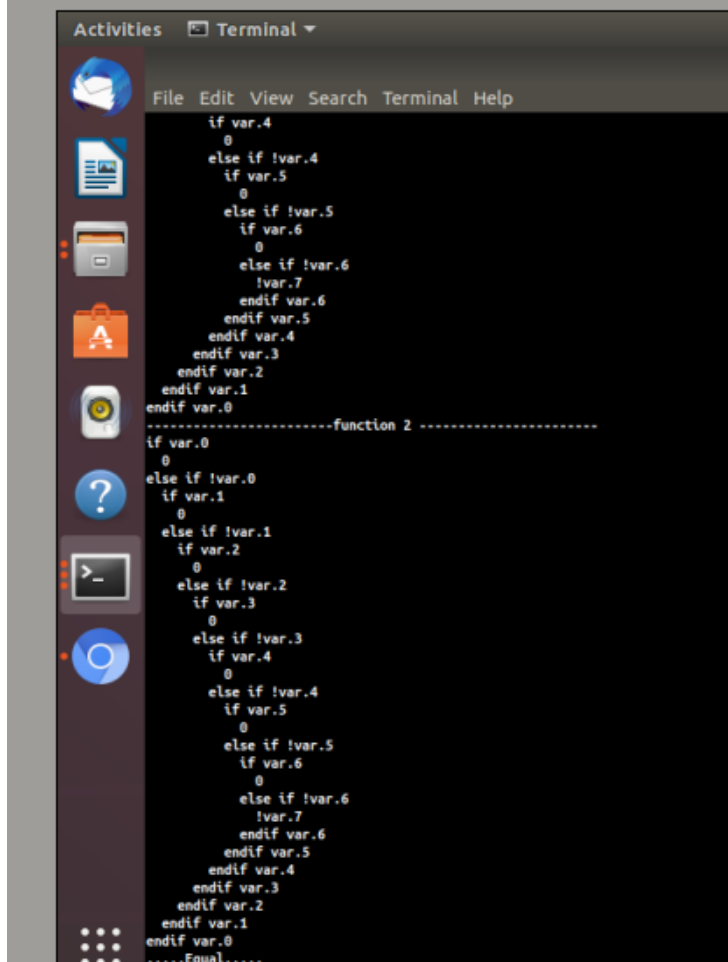
```
sarvesh@sarvesh-Inspiron-3541: ~/cmu_bdd/tests
File Edit View Search Terminal Help
sarvesh@sarvesh-Inspiron-3541:~/cmu_bdd/tests$ ./question1
-----result-----
1
```

Q2.)

```

sarvesh@sarvesh-Inspiron-3541:~/Desktop/tests$ ./question2
-----function 1 -----
if var.0
0
else if !var.0
if var.1
0
else if !var.1
if var.2
0
else if !var.2
if var.3
0
else if !var.3
if var.4
0
else if !var.4
if var.5
0
else if !var.5
if var.6
0
else if !var.6
!var.7
endif var.6
endif var.5
endif var.4
endif var.3
endif var.2
endif var.1
endif var.0
-----function 2 -----
if var.0
0
else if !var.0
if var.1
0
else if !var.1
if var.2
0
else if !var.2
if var.3
0
else if !var.3
if var.4
0

```

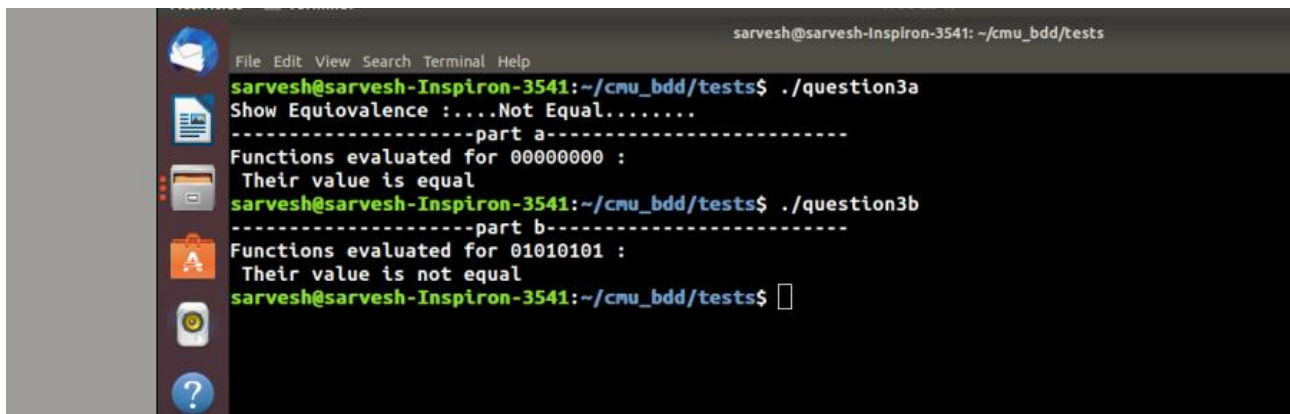


```

Activities  Terminal
File Edit View Search Terminal Help
if var.4
0
else if !var.4
if var.5
0
else if !var.5
if var.6
0
else if !var.6
!var.7
endif var.6
endif var.5
endif var.4
endif var.3
endif var.2
endif var.1
endif var.0
-----function 2 -----
if var.0
0
else if !var.0
if var.1
0
else if !var.1
if var.2
0
else if !var.2
if var.3
0
else if !var.3
if var.4
0
else if !var.4
if var.5
0
else if !var.5
if var.6
0
else if !var.6
!var.7
endif var.6
endif var.5
endif var.4
endif var.3
endif var.2
endif var.1
endif var.0
.....Equal.....

```

Q3.)

A terminal window titled 'sarvesh@sarvesh-Inspiron-3541: ~/cmu\_bdd/tests'. The prompt is 'sarvesh@sarvesh-Inspiron-3541:~/cmu\_bdd/tests\$'. The user enters './question3a'. The output is 'Show Equivalence :....Not Equal.....' followed by '-----part a-----'. Then 'Functions evaluated for 00000000 :' and 'Their value is equal'. The user enters './question3b'. The output is '-----part b-----' followed by 'Functions evaluated for 01010101 :' and 'Their value is not equal'. The prompt returns to 'sarvesh@sarvesh-Inspiron-3541:~/cmu\_bdd/tests\$'.

```
sarvesh@sarvesh-Inspiron-3541:~/cmu_bdd/tests$ ./question3a
Show Equivalence :....Not Equal.....
-----part a-----
Functions evaluated for 00000000 :
Their value is equal
sarvesh@sarvesh-Inspiron-3541:~/cmu_bdd/tests$ ./question3b
-----part b-----
Functions evaluated for 01010101 :
Their value is not equal
sarvesh@sarvesh-Inspiron-3541:~/cmu_bdd/tests$
```

Q4.)

A terminal window titled 'sarvesh@sarvesh-Inspiron-3541: ~/Desktop/cmu\_bdd/tests'. The prompt is 'sarvesh@sarvesh-Inspiron-3541:~/Desktop/cmu\_bdd/tests\$'. The user enters './question4'. The output is '-----function 1 -----' followed by 'The size of robdd is 9'. Then '-----function 2 -----' followed by 'The size of robdd is 31'. The prompt returns to 'sarvesh@sarvesh-Inspiron-3541:~/Desktop/cmu\_bdd/tests\$'.

```
sarvesh@sarvesh-Inspiron-3541:~/Desktop/cmu_bdd/tests$ ./question4
-----function 1 -----
The size of robdd is 9
-----function 2 -----
The size of robdd is 31
sarvesh@sarvesh-Inspiron-3541:~/Desktop/cmu_bdd/tests$
```

Q5a.)

```
sarvesh@sarvesh-Inspiron-3541:~/cmu_bdd/tests$ ./question5
-----f-----
if var.0
  if var.1
    if var.2
      0: if var.3
        if var.4
          1
        else if !var.4
          1: if var.5
            var.7
          else if !var.5
            if var.6
              1
            else if !var.6
              var.7
            endif var.6
          endif var.5
        endif var.4
      else if !var.3
        subformula 1
      endif var.3
    else if !var.2
      1
    endif var.2
  else if !var.1
    subformula 0
  endif var.1
else if !var.0
  subformula 0
endif var.0
-----h-----
1
sarvesh@sarvesh-Inspiron-3541:~/cmu_bdd/tests$
```

Q5b.)

```
sarvesh@sarvesh-Inspiron-3541:~/cmu_bdd/tests$ ./question5b
-----f-----
if var.0
  if var.1
    if var.2
      0: if var.3
        if var.4
          1
        else if !var.4
          1: if var.5
            var.7
          else if !var.5
            if var.6
              1
            else if !var.6
              var.7
            endif var.6
          endif var.5
        endif var.4
      else if !var.3
        subformula 1
      endif var.3
    else if !var.2
      1
    endif var.2
  else if !var.1
    subformula 0
  endif var.1
else if !var.0
  subformula 0
endif var.0
-----h-----
if var.5
  var.7
else if !var.5
  if var.6
    1
  else if !var.6
    var.7
  endif var.6
endif var.5
```