Number of Boolean variables, k = 3

 $9(x_3)$

 x_2

 $12(x_3)$

Binary Tree Representation

Index = 0 (x_1)

 $\mathbf{5}(x_3)$

Index = 1

Index = 0

Truth Table

input.txt

 x_3

 x_2

 x_1

 $f(x_1, \underline{x_2})$

| 1 | $\overline{1}$ | $\overline{0}$ $\overline{0}$ | 7 | 6 | : | 1 | -1 | |
|-----|------------------|-------------------------------|-------------------------|-------------------------|----|----|----------------------------|--|
| | | l3 14 | _ | 7 | : | 1 | -1 | |
| 10 | | 10 11 | | 8 | 2 | 2 | 9 | |
| | | | | 9 | 3 | 3 | 10 | |
| | | | | 10 | : | 1 | -1 | |
| | | | | 11 | : | 1 | -1 | |
| | | | | 12 | 3 | 3 | 13 | |
| | | | | 13 | (| 0 | -1 | |
| | | | | 14 | (| 0 | -1 | |
| | | | | | | | | |
| 011 | :put.2 | b txt | | | | | | |
| | | b.txt data | left | rig | ht | le | vel | |
| | ndex | data | left | rig] | | | vel | |
| | ndex 0 | data 0 | -1 | -1 | | 4 | 4 | |
| | ndex | data | | | | 4 | | |
| | ndex 0 | data 0 | -1 | -1 | | 2 | 4 | |
| | o 1 | data 0 1 | -1 -1 | -1 -1 | | 4 | 4 | |
| | o 1 2 | 0 1 1 | -1 -1 3 | -1 -1 6 | | | 4 4 1 | |
| | o 1 2 3 | data 0 1 2 | -1 -1 3 4 | -1 -1 6 5 | | | 4 4 1 2 | |
| | o 1 2 3 | data 0 1 1 2 3 | -1 -1 3 4 1 | -1 -1 6 5 | | | 4 4 1 2 3 | |
| | o 1 2 3 4 5 | data 0 1 1 2 3 3 | -1 -1 3 4 1 | -1 -1 6 5 0 | | | 4 4 1 2 3 3 | |

output2a.txt

data

left

-1

-1

-1

right

-1

-1

-1

-1

-1

-1

-1

-1

level

Index