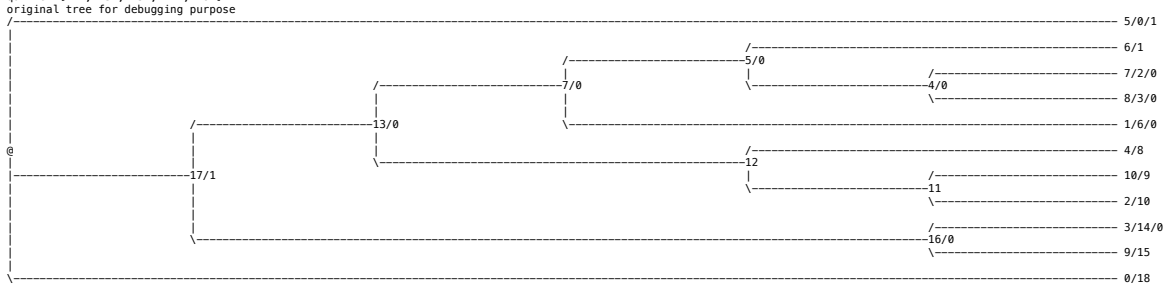
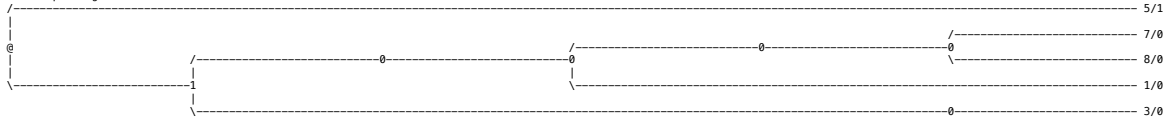
********** Model Condition –model.10.5400000.0.000000037/ Replicate –1/ **********
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose



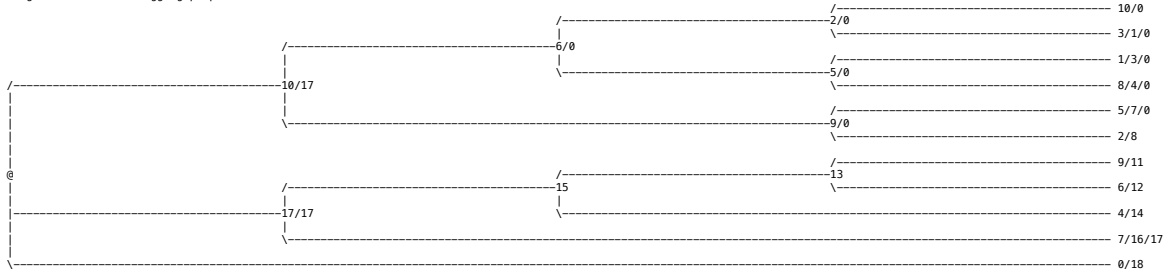
Corresponding 5–taxon tree



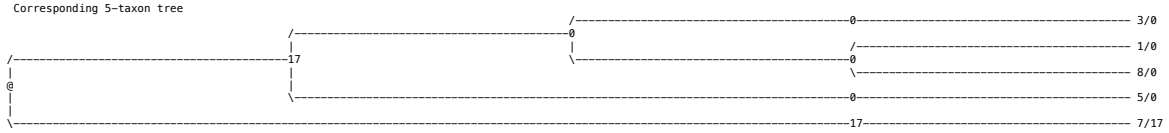
U = [955, 23, 22, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0]

Analysis:–
1)best score on the dataset – 0
2)# edges that have the best score – 9

********** Model Condition –model.10.5400000.0.000000037/ Replicate –2/ **********
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose



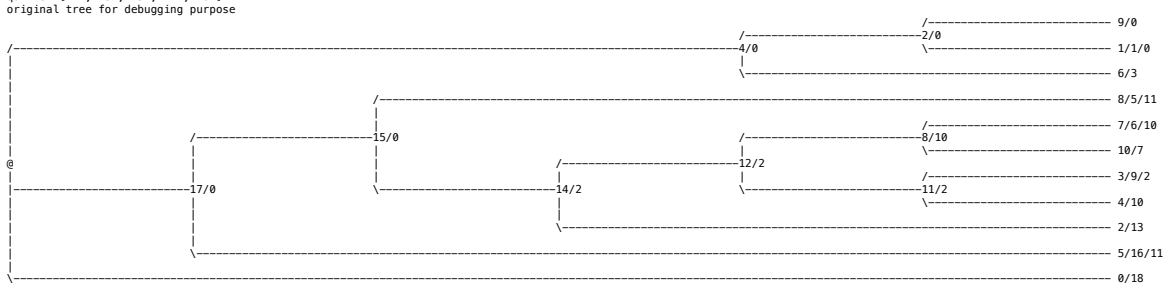
Corresponding 5–taxon tree



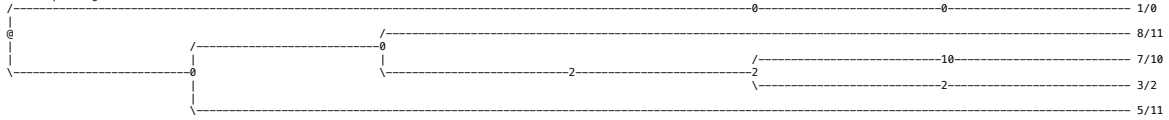
U = [409, 304, 287, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0]

Analysis:–
1)best score on the dataset – 0
2) # edges that have the best score – 8

********** Model Condition –model.10.5400000.0.000000037/ Replicate –3/ **********
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose



Corresponding 5–taxon tree



U = [799, 83, 92, 14, 0, 2, 0, 0, 2, 0, 0, 2, 6, 0, 0]

Analysis:–
1)best score on the dataset – 0
2) # edges that have the best score – 6

********** Model Condition –model.10.1800000.0.000000111/ Replicate –1/ **********
quintet ['1', '3', '5', '7', '8']

original tree for debugging purpose

```
/----------------------------------------------------------------------------------- 5/0/5
|
|                                                       /--------------------------- 6/1
|                                         /-------------5/1
|                                         |             |             /------------- 7/2/1
|                           /-------------7/1           \-------------4/1
|                           |             |                           \------------- 8/3/3
|                           |             |
|             /-------------13/1          \----------------------------------------- 1/6/0
|             |             |
@             |             |                           /--------------------------- 4/8
|             |             \---------------------------12
|-------------17/5                                      |             /------------- 10/9
|             |                                         \-------------11
|             |                                                       \------------- 2/10
|             |
|             |                                                       /------------- 3/14/0
|             \-------------------------------------------------------16/0
|                                                                     \------------- 9/15
|
\----------------------------------------------------------------------------------- 0/18
```

Corresponding 5-taxon tree

```
/------------------------------------------------------------------------------------- 5/5
|
|                                                                       /------------- 7/1
@                                          /-------------1--------------1
|             /-------------1--------------1                            \------------- 8/3
|             |                            |
\-------------5                            \------------------------------------------ 1/0
              |
              \---------------------------------------------------------0------------- 3/0
```

U = [681, 155, 153, 2, 3, 1, 0, 0, 1, 0, 0, 0, 4, 0, 0]

Analysis:-
1)best score on the dataset - 0
2) # edges that have the best score - 3

********** Model Condition -model.10.1800000.0.000000111/ Replicate -2/ **********
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose

```
                                                                    /---------------- 7/0/61
                                  /---------------------------------2/52
                                  |                                 \---------------- 1/1/62
                                  |
                 /----------------10/0                              /---------------- 9/3
                 |                |                /----------------5
                 |                |                |                \---------------- 6/4
                 |                \----------------9/0
/----------------12/1                              |                /---------------- 2/6
|                |                                 \----------------8/0
|                |                                                  \---------------- 8/7/0
|                |
|                \------------------------------------------------------------------- 5/11/8
|
@                                                  /--------------------------------- 10/13
|--------------------------------------------------17/1
|                                                  |                /---------------- 3/14/1
|                                                  \----------------16/1
|                                                                   \---------------- 4/15
|
\------------------------------------------------------------------------------------ 0/18
```

Corresponding 5-taxon tree

```
                                                                    /----------------- 7/61
                                  /---------------------------------52
                 /----------------0                                 \----------------- 1/62
                 |                |
/----------------1                \----------------0----------------0----------------- 8/0
|                |
@                \-------------------------------------------------------------------- 5/8
|
\--------------------------------------------------1----------------1----------------- 3/1
```

U = [302, 93, 92, 131, 55, 63, 1, 3, 59, 2, 4, 45, 136, 7, 7]

Analysis:-
1)best score on the dataset - 0
2) # edges that have the best score - 4

********** Model Condition -model.10.1800000.0.000000111/ Replicate -3/ **********
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose

```
                            /-------------------------------------------------------- 5/0/3
                            |
              /-------------10/0                                    /-------------- 7/1/14
              |             |             /---------------------------3/14
              |             |             |                           \-------------- 6/2
              |             \-------------9/3
              |                           |                           /-------------- 2/4
/-------------14/14                       |             /-------------6
|             |                           \-------------8/3           \-------------- 9/5
|             |                                         |
|             |                                         \---------------------------- 1/7/3
|             |                                                       /-------------- 3/11/0
@             \-------------------------------------------------------13/0
|                                                                     \-------------- 10/12
|
|                                                                     /-------------- 8/15/14
|---------------------------------------------------------------------17/14
|                                                                     \-------------- 4/16
|
\------------------------------------------------------------------------------------ 0/18
```

Corresponding 5-taxon tree

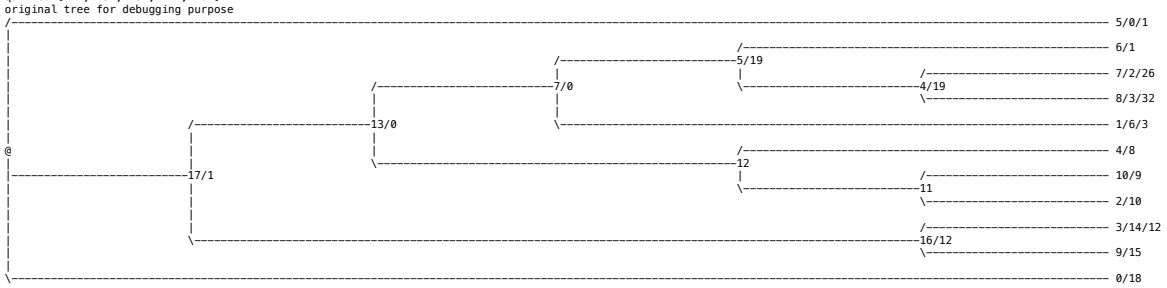
```
                                  /--------------------------------------------------- 5/3
                 /----------------0
                 |                |                /----------------14---------------- 7/14
/----------------14               \----------------3
|                |                                 \----------------3----------------- 1/3
@                |
|                \--------------------------------------------------0----------------- 3/0
|
\-------------------------------------------------------------------14---------------- 8/14
```

U = [711, 39, 27, 102, 10, 8, 0, 0, 3, 0, 0, 4, 96, 0, 0]

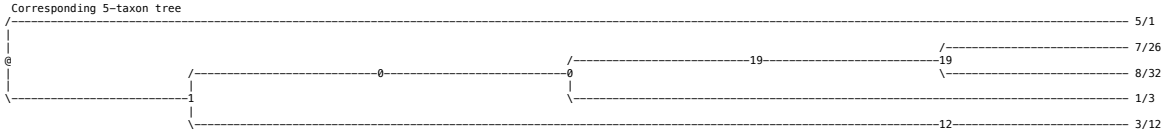
Analysis:-
1)best score on the dataset - 0
2) # edges that have the best score - 3

********** Model Condition -model.10.600000.0.000000333/ Replicate -1/ **********

```
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose
```



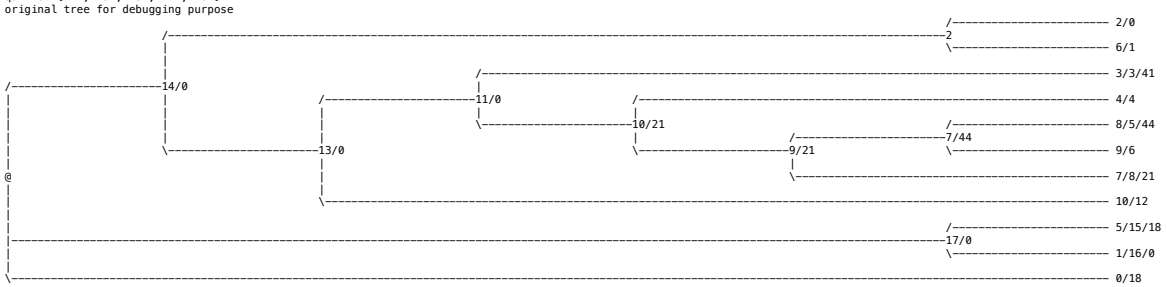

```
 Corresponding 5-taxon tree
```



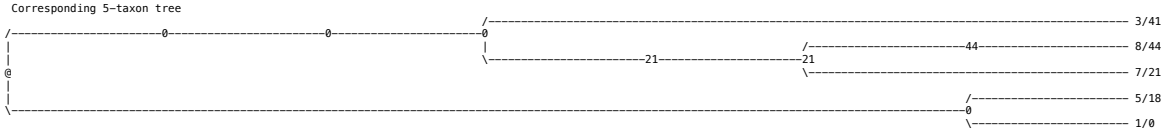

```
U =  [362, 203, 202, 28, 24, 32, 10, 12, 28, 6, 10, 29, 38, 7, 9]

Analysis:-
1)best score on the dataset - 0
2) # edges that have the best score - 2

 ********** Model Condition -model.10.600000.0.000000333/ Replicate -2/ **********
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose
```



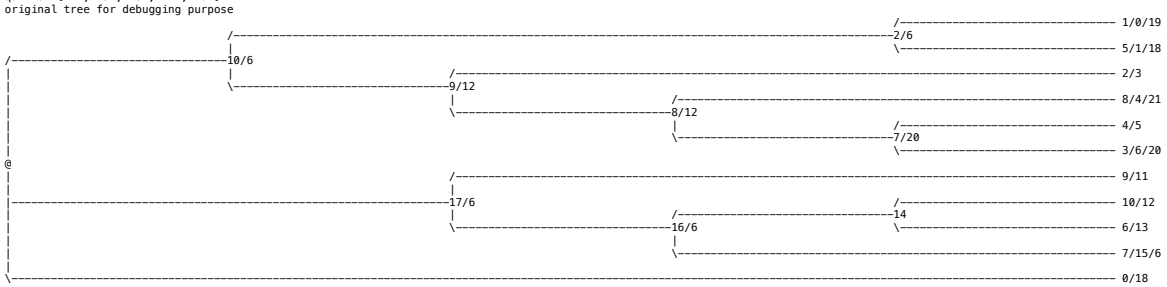

```
 Corresponding 5-taxon tree
```



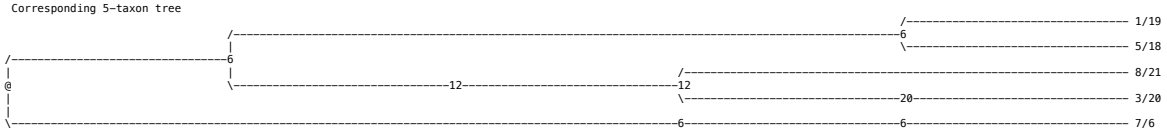

```
U =  [470, 70, 85, 129, 28, 31, 0, 4, 26, 5, 1, 32, 111, 3, 5]

Analysis:-
1)best score on the dataset - 0
2) # edges that have the best score - 5


 ********** Model Condition -model.10.600000.0.000000333/ Replicate -3/ **********
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose
```



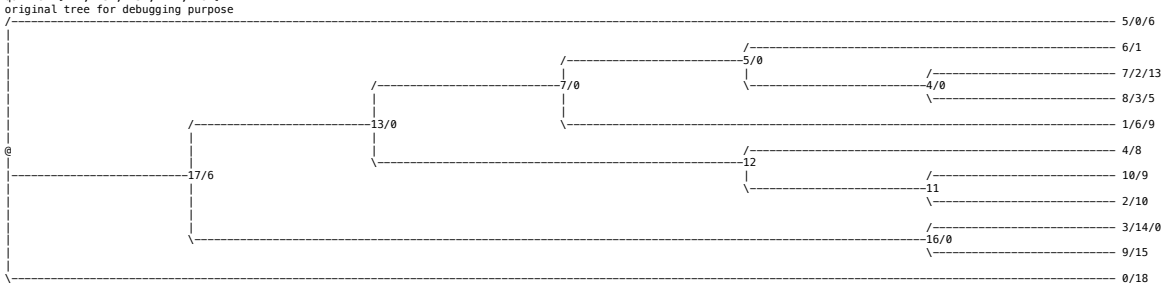

```
 Corresponding 5-taxon tree
```



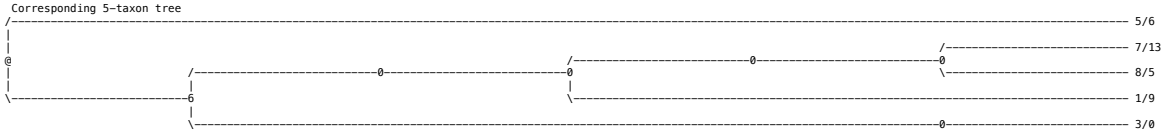

```
U =  [94, 86, 145, 51, 47, 80, 51, 41, 71, 64, 39, 60, 54, 41, 76]


Analysis:-
1)best score on the dataset - 6
2) # edges that have the best score - 5
```

********** Model Condition -model.10.200000.0.000001000/ Replicate -1/ **********
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose



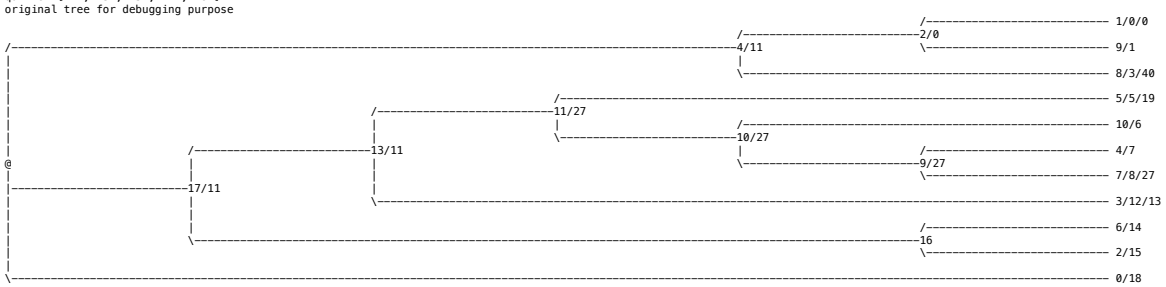
Corresponding 5-taxon tree



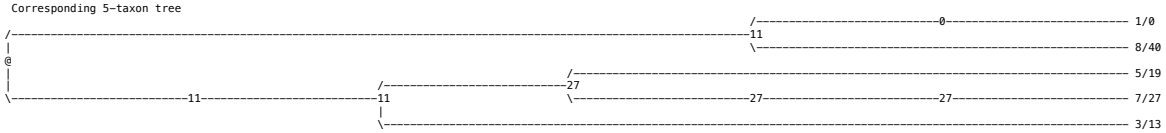
U = [182, 167, 161, 57, 43, 43, 30, 24, 43, 39, 48, 40, 48, 31, 44]

Analysis:-
1)best score on the dataset - 0
2) # edges that have the best score - 5

********** Model Condition -model.10.200000.0.000001000/ Replicate -2/ **********
quintet ['1', '3', '5', '7', '8']
original tree for debugging purpose



Corresponding 5-taxon tree



U = [152, 92, 91, 74, 85, 57, 41, 29, 72, 50, 37, 68, 67, 40, 45]

Analysis:-
1)best score on the dataset - 0
2) # edges that have the best score - 0