**MRLC\_List (cosine2.dot)**

========================================

------------- FILES -------------

1: hal.dot

2: fir1.dot

3: cosine1.dot

4: cosine2.dot

5: Any other .dot file

========================================

Enter the file option: 4

========================================

------------- ALGORITHMS -------------

1: MLRC\_ILP

2: MRLC\_ILP

3: MLRC\_List

4: MRLC\_List

========================================

Enter Option: 4

========================================

Nodes associated with Operations = [['42', '60', '62', '64', '66', '68', '26', '48', '46', '44', '28', '40', '38', '70', '36', '50'], ['54', '53', '24', '21', '29', '71', '15', '58', '18', '31', '34', '74', '57'], ['56', '3', '6', '9', '52', '73', '72', '12', '30', '51', '33', '55', '32'], ['80', '81', '82', '77', '76', '75', '79', '78']]

Unique Resource Types = ['mul', 'add', 'sub', 'exp']

================================================================================

MRLC\_List: Minimum Latency: 151

Enter Latency: 160

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 81-------------------------

-------------------------Start of t = 82-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = ['38', '48', '42', '36', '40', '50', '68']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '64', '66']

U = [['62', '64', '66'], [], [], []]

B = [['60', '70'], ['31', '34', '57'], ['32'], []]

S = [[18, 9, 18], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [2, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 82-------------------------

-------------------------Start of t = 83-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = ['68', '38', '36', '48', '50']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['42', '62', '64', '66', '40']

U = [['42', '62', '64', '66', '40'], [], [], []]

B = [['60', '70'], ['31', '34', '57'], [], []]

S = [[8, 17, 8, 17, 17], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [2, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 83-------------------------

-------------------------Start of t = 84-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = ['68', '38', '36', '48', '50']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['42', '62', '64', '66', '40']

U = [['42', '62', '64', '66', '40'], [], [], []]

B = [['60', '70'], ['31', '34', '57'], [], []]

S = [[7, 16, 7, 16, 16], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [2, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 84-------------------------

-------------------------Start of t = 85-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = ['68', '38', '36', '48', '50']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['42', '62', '64', '66', '40']

U = [['42', '62', '64', '66', '40'], [], [], []]

B = [['60', '70'], ['31', '34', '57'], [], []]

S = [[6, 15, 6, 15, 15], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [2, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 85-------------------------

-------------------------Start of t = 86-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = ['68', '38', '36', '48', '50']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['42', '62', '64', '66', '40']

U = [['42', '62', '64', '66', '40'], [], [], []]

B = [['60', '70'], ['31', '34', '57'], [], []]

S = [[5, 14, 5, 14, 14], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [2, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 86-------------------------

-------------------------Start of t = 87-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = ['68', '38', '36', '48', '50']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['42', '62', '64', '66', '40']

U = [['42', '62', '64', '66', '40'], [], [], []]

B = [['60', '70'], ['31', '34', '57'], [], []]

S = [[4, 13, 4, 13, 13], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [2, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 87-------------------------

-------------------------Start of t = 88-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = ['68', '38', '36', '48', '50']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['42', '62', '64', '66', '40']

U = [['42', '62', '64', '66', '40'], [], [], []]

B = [['60', '70'], ['31', '34', '57'], [], []]

S = [[3, 12, 3, 12, 12], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [2, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 88-------------------------

-------------------------Start of t = 89-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = ['68', '38', '36', '48', '50']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['42', '62', '64', '66', '40']

U = [['42', '62', '64', '66', '40'], [], [], []]

B = [['60', '70'], ['31', '34', '57'], [], []]

S = [[2, 11, 2, 11, 11], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [2, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 89-------------------------

-------------------------Start of t = 90-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = ['68', '38', '36', '48', '50']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['42', '62', '64', '66', '40']

U = [['42', '62', '64', '66', '40'], [], [], []]

B = [['60', '70'], ['31', '34', '57'], [], []]

S = [[1, 10, 1, 10, 10], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [2, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

-------------------------End of t = 90-------------------------

-------------------------Start of t = 91-------------------------

Un-scheduled Nodes = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes before deletion = ['54', '42', '62', '64', '66', '68', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '38', '73', '72', '71', '79', '78', '51', '36', '74', '50']

Nodes with no valid Scheduled Predecessor = ['54', '51', '53', '52', '77', '76', '75', '74', '73', '72', '71', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

Nodes with Predecessor Still Busy = []

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['42', '62', '64', '66', '68', '48', '40', '38', '36', '50']

U = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

B = [['60', '70'], [], [], []]

S = [[0, 9, 0, 9, 0, 9, 9, 0, 9, 0], -1, -1, -1]

U\* = [['42', '64', '68', '38', '50'], [], [], []]

V = [[], [], [], []]

Number Of Instances = [7, 4, 2, 1]

Scheduled Nodes = ['42', '64', '68', '38', '50']

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

-------------------------End of t = 91-------------------------

-------------------------Start of t = 92-------------------------

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes before deletion = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes with no valid Scheduled Predecessor = ['51', '52', '77', '76', '75', '72', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '62', '66', '53', '48', '40', '73', '71', '36', '74']

Nodes with Predecessor Still Busy = ['54', '74', '73', '71', '53']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '66', '48', '40', '36']

U = [['62', '66', '48', '40', '36'], [], [], []]

B = [['42', '60', '64', '68', '38', '70', '50'], [], [], []]

S = [[8, 8, 8, 8, 8], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [7, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

-------------------------End of t = 92-------------------------

-------------------------Start of t = 93-------------------------

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes before deletion = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes with no valid Scheduled Predecessor = ['51', '52', '77', '76', '75', '72', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '62', '66', '53', '48', '40', '73', '71', '36', '74']

Nodes with Predecessor Still Busy = ['54', '74', '73', '71', '53']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '66', '48', '40', '36']

U = [['62', '66', '48', '40', '36'], [], [], []]

B = [['42', '60', '64', '68', '38', '70', '50'], [], [], []]

S = [[7, 7, 7, 7, 7], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [7, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

-------------------------End of t = 93-------------------------

-------------------------Start of t = 94-------------------------

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes before deletion = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes with no valid Scheduled Predecessor = ['51', '52', '77', '76', '75', '72', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '62', '66', '53', '48', '40', '73', '71', '36', '74']

Nodes with Predecessor Still Busy = ['54', '74', '73', '71', '53']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '66', '48', '40', '36']

U = [['62', '66', '48', '40', '36'], [], [], []]

B = [['42', '60', '64', '68', '38', '70', '50'], [], [], []]

S = [[6, 6, 6, 6, 6], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [7, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

-------------------------End of t = 94-------------------------

-------------------------Start of t = 95-------------------------

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes before deletion = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes with no valid Scheduled Predecessor = ['51', '52', '77', '76', '75', '72', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '62', '66', '53', '48', '40', '73', '71', '36', '74']

Nodes with Predecessor Still Busy = ['54', '74', '73', '71', '53']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '66', '48', '40', '36']

U = [['62', '66', '48', '40', '36'], [], [], []]

B = [['42', '60', '64', '68', '38', '70', '50'], [], [], []]

S = [[5, 5, 5, 5, 5], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [7, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

-------------------------End of t = 95-------------------------

-------------------------Start of t = 96-------------------------

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes before deletion = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes with no valid Scheduled Predecessor = ['51', '52', '77', '76', '75', '72', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '62', '66', '53', '48', '40', '73', '71', '36', '74']

Nodes with Predecessor Still Busy = ['54', '74', '73', '71', '53']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '66', '48', '40', '36']

U = [['62', '66', '48', '40', '36'], [], [], []]

B = [['42', '60', '64', '68', '38', '70', '50'], [], [], []]

S = [[4, 4, 4, 4, 4], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [7, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

-------------------------End of t = 96-------------------------

-------------------------Start of t = 97-------------------------

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes before deletion = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes with no valid Scheduled Predecessor = ['51', '52', '77', '76', '75', '72', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '62', '66', '53', '48', '40', '73', '71', '36', '74']

Nodes with Predecessor Still Busy = ['54', '74', '73', '71', '53']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '66', '48', '40', '36']

U = [['62', '66', '48', '40', '36'], [], [], []]

B = [['42', '60', '64', '68', '38', '70', '50'], [], [], []]

S = [[3, 3, 3, 3, 3], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [7, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

-------------------------End of t = 97-------------------------

-------------------------Start of t = 98-------------------------

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes before deletion = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes with no valid Scheduled Predecessor = ['51', '52', '77', '76', '75', '72', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '62', '66', '53', '48', '40', '73', '71', '36', '74']

Nodes with Predecessor Still Busy = ['54', '74', '73', '71', '53']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '66', '48', '40', '36']

U = [['62', '66', '48', '40', '36'], [], [], []]

B = [['42', '60', '64', '68', '38', '70', '50'], [], [], []]

S = [[2, 2, 2, 2, 2], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [7, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

-------------------------End of t = 98-------------------------

-------------------------Start of t = 99-------------------------

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes before deletion = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes with no valid Scheduled Predecessor = ['51', '52', '77', '76', '75', '72', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '62', '66', '53', '48', '40', '73', '71', '36', '74']

Nodes with Predecessor Still Busy = ['54', '74', '73', '71', '53']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '66', '48', '40', '36']

U = [['62', '66', '48', '40', '36'], [], [], []]

B = [['42', '60', '64', '68', '38', '70', '50'], [], [], []]

S = [[1, 1, 1, 1, 1], -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [7, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

-------------------------End of t = 99-------------------------

-------------------------Start of t = 100-------------------------

Un-scheduled Nodes = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes before deletion = ['54', '62', '66', '83', '80', '81', '53', '48', '40', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '36', '74']

Nodes with no valid Scheduled Predecessor = ['51', '52', '77', '76', '75', '72', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '62', '66', '53', '48', '40', '73', '71', '36', '74']

Nodes with Predecessor Still Busy = ['54', '74', '73', '71', '53']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['62', '66', '48', '40', '36']

U = [['62', '66', '48', '40', '36'], [], [], []]

B = [['42', '60', '64', '68', '38', '70', '50'], [], [], []]

S = [[0, 0, 0, 0, 0], -1, -1, -1]

U\* = [['62', '66', '48', '40', '36'], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = ['62', '66', '48', '40', '36']

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 100-------------------------

-------------------------Start of t = 101-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '60', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 101-------------------------

-------------------------Start of t = 102-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 102-------------------------

-------------------------Start of t = 103-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 103-------------------------

-------------------------Start of t = 104-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 104-------------------------

-------------------------Start of t = 105-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 105-------------------------

-------------------------Start of t = 106-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 106-------------------------

-------------------------Start of t = 107-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 107-------------------------

-------------------------Start of t = 108-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 108-------------------------

-------------------------Start of t = 109-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 109-------------------------

-------------------------Start of t = 110-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '70', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 110-------------------------

-------------------------Start of t = 111-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 111-------------------------

-------------------------Start of t = 112-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 112-------------------------

-------------------------Start of t = 113-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 113-------------------------

-------------------------Start of t = 114-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 114-------------------------

-------------------------Start of t = 115-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 115-------------------------

-------------------------Start of t = 116-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 116-------------------------

-------------------------Start of t = 117-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 117-------------------------

-------------------------Start of t = 118-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 118-------------------------

-------------------------Start of t = 119-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 119-------------------------

-------------------------Start of t = 120-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['54', '51', '53', '52', '74', '73', '72', '71']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['42', '62', '64', '66', '68', '48', '40', '38', '36', '50'], [], [], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

-------------------------End of t = 120-------------------------

-------------------------Start of t = 121-------------------------

Un-scheduled Nodes = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes before deletion = ['54', '83', '80', '81', '53', '82', '52', '77', '76', '75', '73', '72', '71', '79', '78', '51', '74']

Nodes with no valid Scheduled Predecessor = ['77', '76', '75', '82', '83', '80', '81', '79', '78']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['54', '53', '52', '73', '72', '71', '51', '74']

Nodes with Predecessor Still Busy = ['51', '72', '52']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['54', '53', '73', '71', '74']

U = [[], ['54', '53', '71', '74'], ['73'], []]

B = [['62', '66', '48', '40', '36'], [], [], []]

S = [-1, [0, 0, 0, 0], [9], -1]

U\* = [[], ['54', '53', '71', '74'], [], []]

V = [[], [], ['73'], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = ['54', '53', '71', '74', '73']

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

-------------------------End of t = 121-------------------------

-------------------------Start of t = 122-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes before deletion = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes with no valid Scheduled Predecessor = ['83', '80', '75', '76']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['81', '82', '52', '77', '72', '79', '78', '51']

Nodes with Predecessor Still Busy = ['51', '52', '77', '72', '82', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['62', '66', '48', '40', '36'], ['54', '53', '71', '74'], ['73'], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

-------------------------End of t = 122-------------------------

-------------------------Start of t = 123-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes before deletion = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes with no valid Scheduled Predecessor = ['83', '80', '75', '76']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['81', '82', '52', '77', '72', '79', '78', '51']

Nodes with Predecessor Still Busy = ['51', '52', '77', '72', '82', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['62', '66', '48', '40', '36'], ['54', '53', '71', '74'], ['73'], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

-------------------------End of t = 123-------------------------

-------------------------Start of t = 124-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes before deletion = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes with no valid Scheduled Predecessor = ['83', '80', '75', '76']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['81', '82', '52', '77', '72', '79', '78', '51']

Nodes with Predecessor Still Busy = ['51', '52', '77', '72', '82', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['62', '66', '48', '40', '36'], ['54', '53', '71', '74'], ['73'], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

-------------------------End of t = 124-------------------------

-------------------------Start of t = 125-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes before deletion = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes with no valid Scheduled Predecessor = ['83', '80', '75', '76']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['81', '82', '52', '77', '72', '79', '78', '51']

Nodes with Predecessor Still Busy = ['51', '52', '77', '72', '82', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['62', '66', '48', '40', '36'], ['54', '53', '71', '74'], ['73'], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

-------------------------End of t = 125-------------------------

-------------------------Start of t = 126-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes before deletion = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes with no valid Scheduled Predecessor = ['83', '80', '75', '76']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['81', '82', '52', '77', '72', '79', '78', '51']

Nodes with Predecessor Still Busy = ['51', '52', '77', '72', '82', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['62', '66', '48', '40', '36'], ['54', '53', '71', '74'], ['73'], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

-------------------------End of t = 126-------------------------

-------------------------Start of t = 127-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes before deletion = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes with no valid Scheduled Predecessor = ['83', '80', '75', '76']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['81', '82', '52', '77', '72', '79', '78', '51']

Nodes with Predecessor Still Busy = ['51', '52', '77', '72', '82', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['62', '66', '48', '40', '36'], ['54', '53', '71', '74'], ['73'], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

-------------------------End of t = 127-------------------------

-------------------------Start of t = 128-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes before deletion = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes with no valid Scheduled Predecessor = ['83', '80', '75', '76']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['81', '82', '52', '77', '72', '79', '78', '51']

Nodes with Predecessor Still Busy = ['51', '52', '77', '72', '82', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['62', '66', '48', '40', '36'], ['54', '53', '71', '74'], ['73'], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

-------------------------End of t = 128-------------------------

-------------------------Start of t = 129-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes before deletion = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes with no valid Scheduled Predecessor = ['83', '80', '75', '76']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['81', '82', '52', '77', '72', '79', '78', '51']

Nodes with Predecessor Still Busy = ['51', '52', '77', '72', '82', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [['62', '66', '48', '40', '36'], ['54', '53', '71', '74'], ['73'], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 2, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

-------------------------End of t = 129-------------------------

-------------------------Start of t = 130-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes before deletion = ['83', '80', '81', '82', '52', '77', '76', '75', '72', '79', '78', '51']

Nodes with no valid Scheduled Predecessor = ['83', '80', '75', '76']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['81', '82', '52', '77', '72', '79', '78', '51']

Nodes with Predecessor Still Busy = ['82', '77', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['52', '72', '51']

U = [[], [], ['52', '72', '51'], []]

B = [[], ['54', '53', '71', '74'], ['73'], []]

S = [-1, -1, [0, 0, 0], -1]

U\* = [[], [], ['52', '72', '51'], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = ['52', '72', '51']

Un-scheduled Nodes = ['83', '80', '81', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 130-------------------------

-------------------------Start of t = 131-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '81', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '81', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '81', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], ['54', '53', '71', '74'], ['52', '73', '72', '51'], []]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '81', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 131-------------------------

-------------------------Start of t = 132-------------------------

Un-scheduled Nodes = ['83', '80', '81', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '81', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '81', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['81']

U = [[], [], [], ['81']]

B = [[], ['54', '53', '71', '74'], ['52', '72', '51'], []]

S = [-1, -1, -1, [9]]

U\* = [[], [], [], []]

V = [[], [], [], ['81']]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = ['81']

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 132-------------------------

-------------------------Start of t = 133-------------------------

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], ['54', '53', '71', '74'], ['52', '72', '51'], ['81']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 133-------------------------

-------------------------Start of t = 134-------------------------

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], ['54', '53', '71', '74'], ['52', '72', '51'], ['81']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 134-------------------------

-------------------------Start of t = 135-------------------------

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], ['54', '53', '71', '74'], ['52', '72', '51'], ['81']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 135-------------------------

-------------------------Start of t = 136-------------------------

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], ['54', '53', '71', '74'], ['52', '72', '51'], ['81']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 136-------------------------

-------------------------Start of t = 137-------------------------

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], ['54', '53', '71', '74'], ['52', '72', '51'], ['81']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 137-------------------------

-------------------------Start of t = 138-------------------------

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], ['54', '53', '71', '74'], ['52', '72', '51'], ['81']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 138-------------------------

-------------------------Start of t = 139-------------------------

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], ['54', '53', '71', '74'], ['52', '72', '51'], ['81']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 139-------------------------

-------------------------Start of t = 140-------------------------

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = ['77', '76', '75', '82', '80', '79', '78']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], ['54', '53', '71', '74'], ['52', '72', '51'], ['81']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 1]

Scheduled Nodes = []

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

-------------------------End of t = 140-------------------------

-------------------------Start of t = 141-------------------------

Un-scheduled Nodes = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes before deletion = ['83', '80', '82', '77', '76', '75', '79', '78']

Nodes with no valid Scheduled Predecessor = ['83']

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['80', '82', '77', '76', '75', '79', '78']

Nodes with Predecessor Still Busy = []

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = ['80', '82', '77', '76', '75', '79', '78']

U = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

B = [[], [], [], ['81']]

S = [-1, -1, -1, [0, 0, 0, 0, 0, 0, 0]]

U\* = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = ['80', '82', '77', '76', '75', '79', '78']

Un-scheduled Nodes = ['83']

-------------------------End of t = 141-------------------------

-------------------------Start of t = 142-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 142-------------------------

-------------------------Start of t = 143-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 143-------------------------

-------------------------Start of t = 144-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 144-------------------------

-------------------------Start of t = 145-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 145-------------------------

-------------------------Start of t = 146-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 146-------------------------

-------------------------Start of t = 147-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 147-------------------------

-------------------------Start of t = 148-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 148-------------------------

-------------------------Start of t = 149-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 149-------------------------

-------------------------Start of t = 150-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 150-------------------------

-------------------------Start of t = 151-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '81', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 151-------------------------

-------------------------Start of t = 152-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 152-------------------------

-------------------------Start of t = 153-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 153-------------------------

-------------------------Start of t = 154-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 154-------------------------

-------------------------Start of t = 155-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 155-------------------------

-------------------------Start of t = 156-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 156-------------------------

-------------------------Start of t = 157-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 157-------------------------

-------------------------Start of t = 158-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 158-------------------------

-------------------------Start of t = 159-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 159-------------------------

-------------------------Start of t = 160-------------------------

Un-scheduled Nodes = ['83']

Nodes before deletion = ['83']

Nodes with no valid Scheduled Predecessor = []

Nodes after 'Nodes with no valid Scheduled Predecessor' removed = ['83']

Nodes with Predecessor Still Busy = ['83']

Nodes after Invalid 'Nodes with Predecessor Still Busy' removed = []

U = [[], [], [], []]

B = [[], [], [], ['80', '82', '77', '76', '75', '79', '78']]

S = [-1, -1, -1, -1]

U\* = [[], [], [], []]

V = [[], [], [], []]

Number Of Instances = [12, 4, 4, 8]

Scheduled Nodes = []

Un-scheduled Nodes = ['83']

-------------------------End of t = 160-------------------------

-------------------------Start of t = 161-------------------------

Sink Node scheduled at t = 161

=========================End of t = 161=========================

------------------------- RESULTS -------------------------

Latency = 160

Number of Multiplier units required = 12

Number of Adder units required = 4

Number of Subtracter units required = 4

Number of Exponent units required = 8