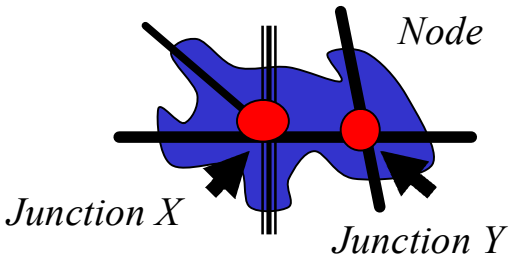
Hierarchy Of Nodes

In the Kerala context where urban rural continuum persists, each local body is having at least one node. The agglomeration of activity area around one or more (adjacent) road junctions which act as commercial centre of a local body is termed here as a node. The node need not be confined fully within a local body area and in most of the cases its service area goes beyond the boundary of the local body within which it locates. In certain cases the nodes may be located at the meeting point of the boundary of one or two local bodies. This means that the nodes have an entity independent of the local body area and necessitates a separate study other than the settlement study. The hierarchy of the nodes is determined by the extent of activity taking place there. The number and type of shops , the number of people using the node, the business turn over , the extent of traffic activity taking place there all determines the extent of activity taking place there and hence the hierarchy of nodes. But extensive survey and study are required to assess all these factors .Whereas it can be seen that the extent of development in a node is directly proportional to the heirachy of the roads meeting at a node. Here an attempt is made to determine the hierarchy of the nodes based on the hierarchy of roads meeting at the node.

The concept

1. The hierarchy of the activity nodes is the sum of the hierarchy value of all the junctions containing the node.



2. The hierarchy of a junction is directly proportional to the hierarchy and the number of the roads meeting at the junction

Methodology.

Step-1 **:**

Categorize the roads meeting at a junctions

A-NH & SH

B-Major District roads

C-Major Bus routes, Jilla Panchayat roads, Local primary/Block Panchayat roads

D-Sub major Bus route, Local secondary roads/ Grama Panchayat roads

L-Lower category roads, Minor bus route

Step-2:

Assign values to the meeting of various roads according to the following matrix

This can be termed as junction values

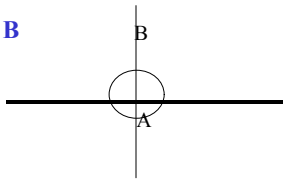
	A	B	C	D	L
A	9	8	7	6	2
B	8	7	6	5	2
C	7	6	5	4	2
D	6	5	4	3	2
L	2	2	2	2	1

Step-3:

Find the sum of all the junction values (within the node taken) to get the total weightage of the node.

EXAMPLE-1

A meets B



Here Junction value is of A meets B ie. (11) ∴ TWJ = 8.

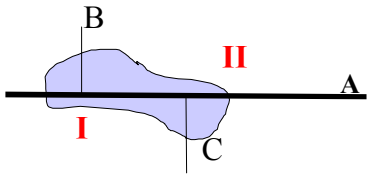
EXAMPLE-2

Weightage = 3/4 of the weightage of the A meets B

= ¾ *8 = 6

EXAMPLE-3

The physical development is so contiguous that it contain two junctions



Calculate the weightage of jns in the in the order of its hierarchy ie Calculate the weightage of highest order first

Weightage of I = 3/4 of the weightage of the A meets B

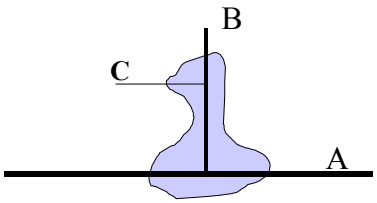
¾ of 8 = 6

Weightage of II = 1/4 of the weightage of the A meets c

1/4 of 7 = 1.25

Total weightage = 6+1.25=7.25

EXAMPLE-4

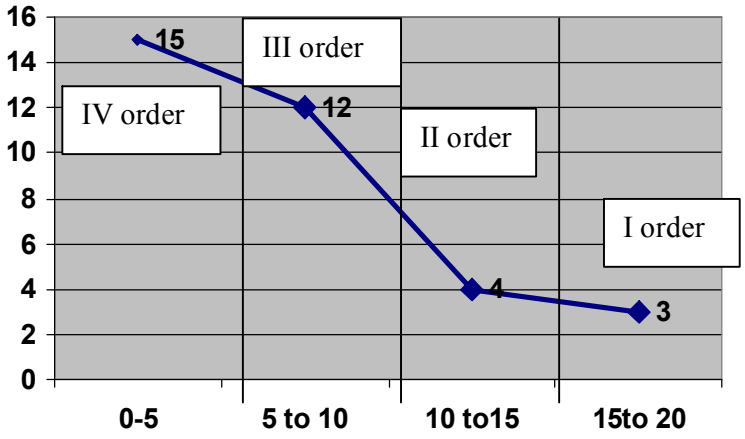


The road B makes two jns one with A and the other with C , but the development due to B is taken only once

3/4 of A meets B+ 1/4 of B meets C

Step4

A graph is plotted with the weightage of nodes in the range 0-5, 5-10, 10-15, 15-20 etc along X axis and the number of nodes in each range along Y axis.



Step5

Find the break points in the graph determine the hierarchy of the nodes. The graph shows that there are 3 first order junctions, 4 second order junctions , 12 third order junctions and 15 fourth order junctions .