

→ If a proposition is false it is denoted by the truth value '0'.

### (\*) Logical connectives :-

The words like 'not', 'and', 'if then', 'if and only if', such words are called as logical connectives.

### (\*) Compound proposition :-

The new proposition is obtained by combining the two given propositions using the logical connectives are called as compound proposition.

### (\*) Simple proposition :-

Proposition which do not contains any logical connectives are called simple propositions.

### (\*) Negation ( $\sim$ )

A proposition is obtained by inserting the word 'not' in an appropriate place is called the negation of the given proposition.

The negation of a proposition 'p' is denoted by  $\sim p$

eg:- 1)  $p$ : 3 is a prime number — 1

$\sim p$ : 3 is not a prime number — 0

Truth table:

$p$	$\sim p$
1	0
0	1

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C:\Users\Admin\Desktop\1JS21AI018\DAA_LAB>java fractional_knapsack
*** KNAPSACK PROBLEM-GREEDY METHOD***
Enter the number of items in the store:
7
Enter the (weight and profit) of items:
2      10
3      5
5      15
7      7
1      6
4      18
1      3
Enter the capacity of the knapsack:
15

Items Selected Fraction Selected(0/1/Partial)
*****
      1      1.0
      2      0.6666666666666666
      3      1.0
      4      0.0
      5      1.0
      6      1.0
      7      1.0

Max Profit = 55.333333333333336, Max Weight = 15.0

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C:\Users\Admin\Desktop\1JS21AI018\DAA_LAB>java Dijkstra
***** DIJKSTRA'S ALGORITHM *****
Enter no. of nodes :
5
Enter cost adjacency matrix :
0      3      999      7      999
3      0      4      2      999
999     4      0      5      6
7      2      5      0      4
999     999     6      4      0
Enter source vertex :
1
The shortest path and distance is shown below:
DEST VERTEX<-(Intermediate vertices)<-SOURCE=DISTANCE
1<-1=0
2<-1=3
3<-2<-1=7
4<-2<-1=5
5<-4<-2<-1=9

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C:\Users\Admin\Desktop\1JS21AI018\DAA_LAB>java TSE
The cost of most efficient tour = 80

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