

Algorithms based on the graphs:-----

1. minimum spanning tree, Prim's algorithm.

http://www.gateguru.org/algorithms/minimum_spanning_tree_prim.pdf

2. The minimum spanning tree, Kruskal's algorithm.

http://www.gateguru.org/algorithms/minimum_spanning_tree_kruskal.pdf

3. The single source shortest path algorithm, Dijkstra's algorithm.

http://www.gateguru.org/algorithms/single_source_shortest_path_dijkstra.pdf

4. The single source shortest path algorithm, Bellman Fords algorithm.

http://www.gateguru.org/algorithms/single_source_shortest_path_bellman_ford.pdf

5. The all pairs shortest paths, Floyd's algorithm.

http://www.gateguru.org/algorithms/all_pairs_shortest_paths_floyd.pdf

6. The traveling salesman problem, dynamic programming solution.

http://www.gateguru.org/algorithms/traveling_salesman_problem_dynamic_programming.pdf

7. The traveling salesman problem, branch and bound solution.

http://www.gateguru.org/algorithms/traveling_salesman_problem_branch_and_bound.pdf

8. The articulation points determination algorithm.

http://www.gateguru.org/algorithms/articulation_points.pdf

9. The Hamiltonian circuit, backtracking algorithm.

http://www.gateguru.org/algorithms/hamiltonian_circuit_backtracking.pdf

10. The chromatic number problem, backtracking.

http://www.gateguru.org/algorithms/chromatic_number_backtracking.pdf

11. The clique problem is transferable to the satisfiability problem.

http://www.gateguru.org/algorithms/clique_problem_to_satisfiability.pdf

12. The clique problem is transferable to the vertex cover problem.

http://www.gateguru.org/algorithms/clique_problem_to_vertex_cover.pdf

13. The vertex cover problem is transferable to the feedback vertex set problem.

http://www.gateguru.org/algorithms/vertex_cover_to_feedback_vertex_set.pdf

14. The vertex cover problem is transferable to the feedback edge set problem.
http://www.gateguru.org/algorithms/vertex_cover_to_feedback_edge_set.pdf

15. The vertex cover problem is transferable to the Hamiltonian circuit problem
http://www.gateguru.org/algorithms/vertex_cover_to_hamiltonian_cycle.pdf

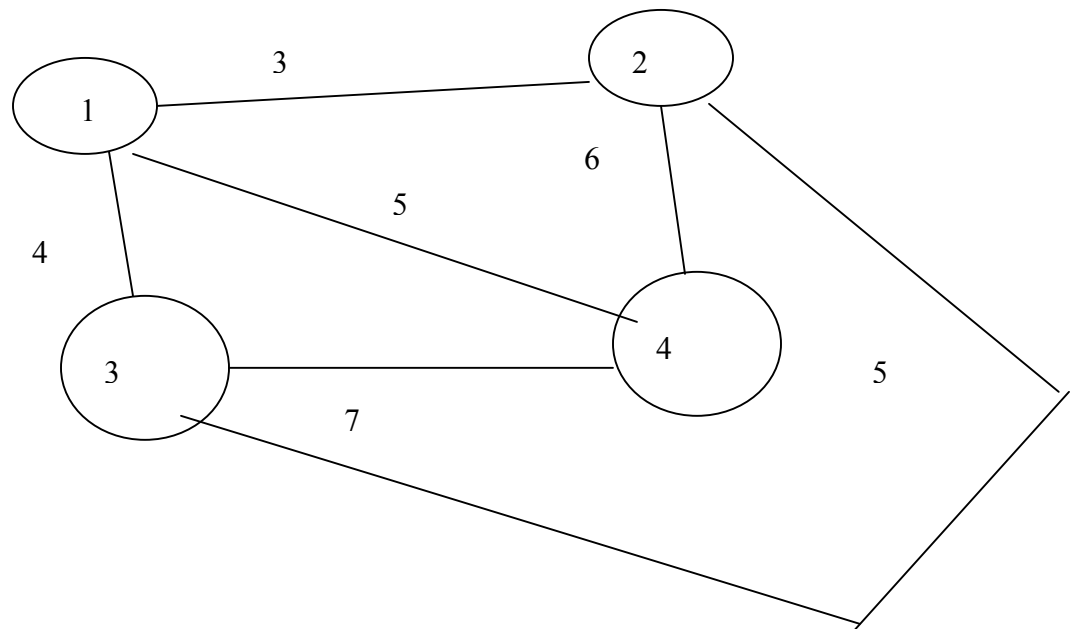
16. The vertex cover problem is transferable to the set cover problem.
http://www.gateguru.org/algorithms/vertex_cover_to_set_cover.pdf

17. The colorability is transferable to the exact cover problem.
http://www.gateguru.org/algorithms/colorability_to_exact_cover.pdf

GRAPH ONE

Consider a undirected graph of four vertices, v_i , $1 \leq i \leq 4$, with edge (v_i, v_j) having a weight of $i+j$.

Pictorial view of the graph:



ADJACENCY MATRIX REPRESENTATION OF THE GRAPH

	1	2	3	4
1	∞	3	4	5
2	3	∞	5	6
3	4	5	∞	7

ADJACENCY LIST REPRESENTATION OF THE GRAPH

