

2023

COMPUTER SCIENCE — HONOURS — PRACTICAL

Paper : CC-9P

Full Marks : 30

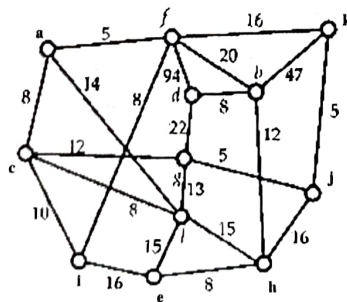
SET - 3

Marks Distribution :

| | |
|---------------|----|
| Source Code : | 10 |
| Algorithm : | 05 |
| Output : | 05 |
| Sessional : | 04 |
| Viva voce : | 06 |

Answer *any one* question.

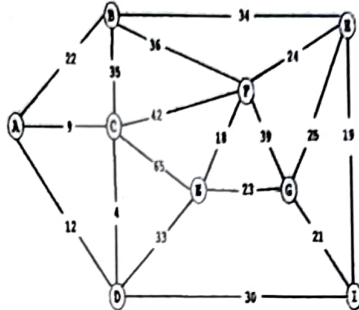
- Write a C program to find out the minimum cost path from vertex 'a' to vertex 'j' using Dijkstra's algorithm. Output corresponding cost and vertices comprising the desired path from vertex 'a' to vertex 'j'.



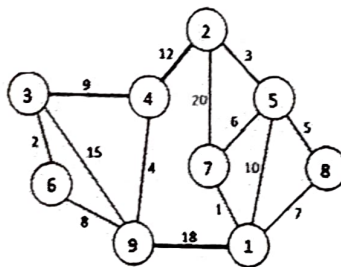
(2)

Z(4th Sm.)-Computer Sc.-H/Pr./CC-9P/CBCS/Set-3

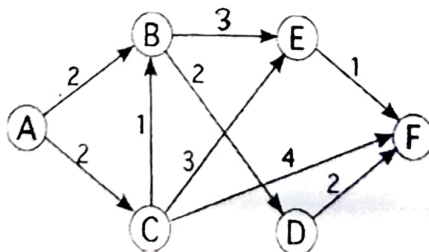
2. For a weighted graph, as given below, write a C program to find out minimum cost spanning tree using Prim's algorithm. Print vertices forming minimum spanning tree and its total cost.



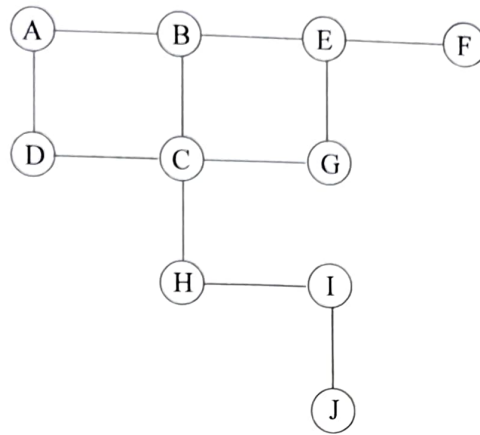
3. Write a C program to apply Kruskal's Algorithm to find out the minimum cost spanning tree from the graph below. Output the corresponding tree and cost of the tree.



4. Write a C program to generate possible shortest paths among all pairs of vertices using Floyd-Warshall's algorithm. Output vertices comprising shortest paths among each pair of vertices.



5. Write a C program to apply DFS algorithm on the following graph.



6. Write a C program to apply BFS algorithm on the following graph.

