Program:

```
#include <stdio.h>
int main()
{
 printf("Niyati 's code—Prims Algorithm \n");
 int current, totalvisited, mincost, i, n;
 {0, 0, 8, 0, 7, 0};
  n = 6; // Number of nodes
 int dis[6], vis[6], predec[6];
 for (i = 0; i < n; i++) // Array Initialization
 {
    dis[i] = 9999;
   vis[i] = 0;
   predec[i] = 0;
 }
  current = 0;
  dis[current] = 0;
  vis[current] = 1;
  predec[current] = 0;
  totalvisited = 1;
  while (totalvisited != n)
  {
   for (i = 0; i < n; i++)
    {
      if (weight[current][i] != 0) //Finding direct nodes
        if (vis[i] == 0)
          if (dis[i] > (weight[current][i]))
```

```
{
              dis[i] = weight[current][i];
              predec[i] = current;
           }
    }
    mincost = 9999;
    for (i = 0; i < n; i++)
    {
       if (vis[i] == 0)
         if (dis[i] < mincost)</pre>
         {
            mincost = dis[i];
            current = i;
         }
    }
    vis[current] = 1;
    totalvisited++;
  }
  mincost = 0;
  for (i = 0; i < n; i++)
    mincost += dis[i];
    printf("\n Node=%d and predecessor is %d and wt is %d current cost is %d", i, predec[i], dis[i],
mincost);
  }
  printf(" \n The minimum cost is %d", mincost);
  return 0;
```

}

Output:

Niyati 's code-- Prims Algorithm

Node=0 and predecessor is 0 and wt is 0 current cost is 0

Node=1 and predecessor is 3 and wt is 1 current cost is 1

Node=2 and predecessor is 4 and wt is 3 current cost is 4

Node=3 and predecessor is 0 and wt is 4 current cost is 8

Node=4 and predecessor is 3 and wt is 2 current cost is 10

Node=5 and predecessor is 4 and wt is 7 current cost is 17

The minimum cost is 17