**Project Report**

**Implementation and Evaluation of Graph Theory Algorithms**

**Design and Analysis of Algorithms**

**Submitted by:**

Muhammad Mustafa Manga 17K-3795

Hassan Ahmed 17K-3654

Section E

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**Submitted to:**

Dr. Muhammad Atif Tahir

Table 1: Minimum cost algorithm with given source

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Benchmark | Prims | Kruskal | Dijsktra | Bellman Ford | Floyd Warshall | Clustering Coefficient (Local Clustering) |
| Input 10 | 29.4 | 29.4 | 79.2 | 79.2 | 79.2 | 0.713333 |
| Input 20 | 69.75 | 69.75 | 182.4 | 182.4 | 182.4 | 0.207857 |
| Input 30 | 102.3 | 102.3 | 234.0 | 234.0 | 234.0 | 0.212777 |
| Input 40 | 161.55 | 161.55 | 441.9 | 441.9 | 441.9 | 0.137936 |
| Input 50 | 163.65 | 163.65 | 539.55 | 539.55 | 539.55 | 0.089142 |
| Input 60 | 231.0 | 231.0 | 1144.95 | 1144.95 | 1144.95 | 0.118779 |
| Input 70 | 247.65 | 247.65 | 950.55 | 950.55 | 950.55 | 0.047040 |
| Input 80 | 294.15 | 294.15 | 807.6 | 807.6 | 807.6 | 0.058749 |
| Input 90 | 342.6 | 342.6 | 1284.9 | 1284.9 | 1284.9 | 0.085634 |
| Input 100 | 364.2 | 364.2 | 1261.2 | 1261.2 | 1261.2 | 0.051601 |