The initial weighted graph is:

 0: 0   123 131 154 130 115 143 53 168 198 139 97 101 176 190 24 77 67 92 60 192 112 88
 1: 123 0   164 38 90 45 29 73 161 155 141 86 180 42 126 110 24 168 39 104 122 43 58
 2: 131 164 0   59 100 186 9   160 186 4   65 162 66 10 18 154 147 17 179 192 110 48 118
 3: 154 38 59 0   148 36 92 27 18 11 172 132 191 44 5   123 151 62 31 69 95 186 96
 4: 130 90 100 148 0   167 143 119 106 75 90 60 130 188 178 86 73 122 110 13 1   170 53
 5: 115 45 186 36 167 0   24 62 152 119 129 115 75 176 76 71 173 159 71 109 24 81 98
 6: 143 29 9   92 143 24 0   36 114 12 83 53 27 186 116 95 58 53 84 92 144 192 161
 7: 53 73 160 27 119 62 36 0   69 149 102 56 160 159 154 121 189 78 142 177 58 145 122
 8: 168 161 186 18 106 152 114 69 0   68 183 169 10 171 185 104 74 184 72 55 29 49 143
 9: 198 155 4   11 75 119 12 149 68 0   170 151 53 67 61 193 13 199 45 10 142 32 7
10: 139 141 65 172 90 129 83 102 183 170 0   174 177 115 64 5   137 2   15 45 198 47 58
11: 97 86 162 132 60 115 53 56 169 151 174 0   110 54 112 159 117 165 103 103 198 100 137
12: 101 180 66 191 130 75 27 160 10 53 177 110 0   32 59 127 177 48 92 92 93 170 6
13: 176 42 10 44 188 176 186 159 171 67 115 54 32 0   128 144 172 95 116 4   104 142 21
14: 190 126 18 5   178 76 116 154 185 61 64 112 59 128 0   130 197 119 142 174 88 128 17
15: 24 110 154 123 86 71 95 121 104 193 5   159 127 144 130 0   48 92 18 152 182 169 194
16: 77 24 147 151 73 173 58 189 74 13 137 117 177 172 197 48 0   160 6   196 151 26 38
17: 67 168 17 62 122 159 53 78 184 199 2   165 48 95 119 92 160 0   138 149 177 85 199
18: 92 39 179 31 110 71 84 142 72 45 15 103 92 116 142 18 6   138 0   73 28 1   149
19: 60 104 192 69 13 109 92 177 55 10 45 103 92 4   174 152 196 149 73 0   33 192 194
20: 192 122 110 95 1   24 144 58 29 142 198 198 93 104 88 182 151 177 28 33 0   197 83
21: 112 43 48 186 170 81 192 145 49 32 47 100 170 142 128 169 26 85 1   192 197 0   32
22: 88 58 118 96 53 98 161 122 143 7   58 137 6   21 17 194 38 199 149 194 83 32 0

The Shortest Distance is:

0: 0 72 48 63 71 81 57 53 75 52 29 97 65 58 66 24 48 31 42 60 70 43 59
1: 72 0 38 38 59 45 29 65 56 37 45 82 50 42 43 48 24 47 30 46 58 31 44
2: 48 38 0 15 27 33 9 42 27 4 19 62 17 10 18 24 17 17 23 14 28 24 11
3: 63 38 15 0 34 36 23 27 18 11 34 76 24 25 5 39 24 32 30 21 35 31 18
4: 71 59 27 34 0 25 35 59 30 23 44 60 36 17 39 47 35 44 29 13 1 30 30
5: 81 45 33 36 25 0 24 60 53 36 52 77 49 42 41 57 49 50 52 38 24 53 43
6: 57 29 9 23 35 24 0 36 35 12 28 53 25 19 27 33 25 26 31 22 36 32 19
7: 53 65 42 27 59 60 36 0 45 38 61 56 51 52 32 66 51 59 57 48 58 58 45
8: 75 56 27 18 30 53 35 45 0 23 46 88 10 37 23 51 36 44 42 33 29 43 16
9: 52 37 4 11 23 36 12 38 23 0 23 65 13 14 16 28 13 21 19 10 24 20 7
10: 29 45 19 34 44 52 28 61 46 23 0 81 36 29 37 5 21 2 15 33 43 16 30
11: 97 82 62 76 60 77 53 56 88 65 81 0 78 54 80 86 78 79 84 58 61 85 72
12: 65 50 17 24 36 49 25 51 10 13 36 78 0 27 23 41 26 34 32 23 37 33 6
13: 58 42 10 25 17 42 19 52 37 14 29 54 27 0 28 34 27 27 33 4 18 34 21
14: 66 43 18 5 39 41 27 32 23 16 37 80 23 28 0 42 29 35 35 26 40 36 17
15: 24 48 24 39 47 57 33 66 51 28 5 86 41 34 42 0 24 7 18 38 46 19 35
16: 48 24 17 24 35 49 25 51 36 13 21 78 26 27 29 24 0 23 6 23 34 7 20
17: 31 47 17 32 44 50 26 59 44 21 2 79 34 27 35 7 23 0 17 31 45 18 28
18: 42 30 23 30 29 52 31 57 42 19 15 84 32 33 35 18 6 17 0 29 28 1 26
19: 60 46 14 21 13 38 22 48 33 10 33 58 23 4 26 38 23 31 29 0 14 30 17
20: 70 58 28 35 1 24 36 58 29 24 43 61 37 18 40 46 34 45 28 14 0 29 31
21: 43 31 24 31 30 53 32 58 43 20 16 85 33 34 36 19 7 18 1 30 29 0 27
22: 59 44 11 18 30 43 19 45 16 7 30 72 6 21 17 35 20 28 26 17 31 27 0

The Shortest Path is:

0: -1 18 17 17 20 17 17 -1 22 17 15 -1 22 17 17 -1 18 15 15 -1 18 18 17
1: 18 -1 6 -1 19 -1 -1 3 3 16 18 6 22 -1 3 18 -1 18 16 13 18 18 16
2: 17 6 -1 9 19 6 -1 9 22 -1 17 6 22 -1 -1 17 9 -1 16 9 19 18 9
3: 17 -1 9 -1 19 -1 9 -1 -1 -1 17 9 22 9 -1 17 9 9 16 9 19 18 9
4: 20 19 19 19 -1 20 19 20 20 19 20 -1 22 19 19 20 20 19 20 -1 -1 20 19
5: 17 -1 6 -1 20 -1 -1 6 20 6 17 6 22 20 3 17 9 6 20 20 -1 20 9
6: 17 -1 -1 9 19 -1 -1 -1 22 -1 17 -1 22 2 2 17 9 2 16 9 19 18 9
7: -1 3 9 -1 20 6 -1 -1 3 3 17 -1 22 9 3 17 9 9 16 9 -1 18 9
8: 22 3 22 -1 20 20 22 3 -1 22 22 22 -1 22 3 22 22 22 22 22 -1 22 12
9: 17 16 -1 -1 19 6 -1 3 22 -1 17 6 22 2 3 17 -1 2 16 -1 19 18 -1
10: 15 18 17 17 20 17 17 17 22 17 -1 17 22 17 17 -1 18 -1 -1 17 18 18 17
11: -1 6 6 9 -1 6 -1 -1 22 6 17 -1 22 -1 6 17 9 6 16 13 4 18 9
12: 22 22 22 22 22 22 22 22 -1 22 22 22 -1 22 22 22 22 22 22 22 22 22 -1
13: 17 -1 -1 9 19 20 2 9 22 2 17 -1 22 -1 2 17 9 2 16 -1 19 18 -1
14: 17 3 -1 -1 19 3 2 3 3 3 17 6 22 2 -1 17 9 2 16 9 19 18 -1
15: -1 18 17 17 20 17 17 17 22 17 -1 17 22 17 17 -1 18 10 -1 17 18 18 17
16: 18 -1 9 9 20 9 9 9 22 -1 18 9 22 9 9 18 -1 18 -1 9 18 18 9
17: 15 18 -1 9 19 6 2 9 22 2 -1 6 22 2 2 10 18 -1 10 9 18 18 9
18: 15 16 16 16 20 20 16 16 22 16 -1 16 22 16 16 -1 -1 10 -1 16 -1 -1 16
19: -1 13 9 9 -1 20 9 9 22 -1 17 13 22 -1 9 17 9 9 16 -1 4 18 9
20: 18 18 19 19 -1 -1 19 -1 -1 19 18 4 22 19 19 18 18 18 -1 4 -1 18 19
21: 18 18 18 18 20 20 18 18 22 18 18 18 22 18 18 18 18 18 -1 18 18 -1 18
22: 17 16 9 9 19 9 9 9 12 -1 17 9 -1 -1 -1 17 9 9 16 9 19 18 –1

The code that implements Floyd's algorithm (and produced the above sample run) is:

```
for ( n = 0; n < vertices; n++)
for ( m = 0; m < vertices; m++){
                                ShortestDistance[m][n] = Graph[n][m];
                                ShortestPath[m][n] = -1;
                                }
        for (int x = 0; x < vertices; x++)
         for (int y = 0; y < vertices; y++)
          for (int z = 0; z < vertices; z++)
           if (ShortestDistance[y][z] > ShortestDistance[y][x] + ShortestDistance[x][z]){
                                        ShortestDistance[y][z] = ShortestDistance[y][x] +
                                        ShortestDistance[x][z];
                                         ShortestPath[y][z] = x;
                                  }
```