1. Give the formal description of graph G28 = (VG28,EG28)

**Answer:**

VG28 = (E, F, H, I, J, K, M, P)

EG28 = {(E, K), (E, I), (E, J), (E, M), (H, I), (H, K), (H, J), (F, I), (F, J), (F, K), (F, P)}

1. Draw the adjacency list and matrix representation of the weighted graph.

**Adjacency List:**

| E | **→** | I | → | J | → | K | → | M | X |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| F | **→** | I | → | J | → | K | → | P | X |
| H | **→** | I | → | J | → | K | X |  |  |
| I | **→** | E | → | F | → | H | X |  |  |
| J | **→** | E | → | F | → | H | X |  |  |
| K | **→** | E | → | F | → | H | X |  |  |
| M | **→** | E | X |  |  |  |  |  |  |
| P | **→** | F | X |  |  |  |  |  |  |

**Matrix Representation:**

|  | E | F | H | I | J | K | M | P |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| F | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| H | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| I | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| J | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| K | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| M | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |