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Technical Programming ii

Smart Campus shuttle System

1. Directed Graph

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|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Admin building | Library | ICT Department | Engineering  block | Science Lab | Cafeteria | Res A | Res B | Main entrance | Sport complex |
| Admin  Building | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Library | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ICT Department | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Engineering Block | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Science lab | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Cafeteria | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Res A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Res B | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Main entrance | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sport Complex | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**The adjacency Matrix of the Smart Campus shuttle System**

**Adjacency list**

* Admin Building: [‘Library’],
* Library: [‘ICT Department’, ‘Sports Complex’],
* ICT Department: [‘Engineering Block’],
* Engineering Block: [‘Science Labs’],
* Science Labs: [‘Cafeteria’],
* Cafeteria: [‘Residence A’],
* Residence A: [‘Residence B’],
* Residence B: [‘Main Entrance’],
* Main Entrance: [‘Admin Building’],
* Sports Complex: []