1. For the planar frame shown in **Figure 1**. Design Column AB. For material property, dimension and load type please refer the tables below.

**NB:**

* **Use pattern loading for the design of Column AB.**
* **All dimensions are in mm unless specified**

|  |  |
| --- | --- |
| * Use C30/37 Concrete
 | * **Beam Dimension (Depth X Width) for:**
 |
| * Use S400 Rebar
 | * Ground Floor 350x250mm
 |
|  | * First Floor 500x400mm
 |
|  | * Roof 500x350mm
 |
|  | * **Column Dimension for all:**
 |
|  | * Depth = 600mm
 |
|  | * Width = 350mm
 |

|  |  |  |
| --- | --- | --- |
| **Floor type** | **Dead Load (Gk)- KN/m** | **Live Load (Qk)- KN/m** |
| Ground Floor | 16 | 0 |
| First Floor | 80 | 32 |
| Roof | 60 | 0 |

|  |
| --- |
|  |
| **Figure 1: Planar Column** |