

IITK Consulting Group  
Summer Camp - Consulting Module  
Group Assignment-1

**Q. What percent of our academic area is green cover?**

**A. 1. Assumptions-**

The academic area has two parts, (1) constructed area (buildings, roads) (2) Green cover (includes park, perennially green area).

Building complex.

Roads are assumed to be 2 meters wide. Since it is difficult to assume exact length of roads in a network, I have assumed the roads to be connected sideways to building complex. Now, the roads can be counted twice while counting 2 adjacent buildings, therefore, the increase in width is taken 1 meter in this case.

Building complexes are considered rectangular/cubical blocks.

**2. Break down-**

Area of whole academic block =  $450\text{m} \times 1000\text{m} = 4,50,000\text{m}^2$

As there are some large blocks like library, and some small like departmental blocks, I have taken average area as  $85\text{m} \times 170\text{m}$ , including roads on all sides =  $87\text{m} \times 172\text{m} = 15,000\text{m}^2$  approx.

For 10 such blocks, total area =  $1,50,000\text{m}^2$ .

Green Cover = Total Area – Constructed Area

$$= 4,50,000\text{m}^2 - 1,50,000\text{m}^2$$

$$= 3,00,000\text{m}^2$$

$$\% \text{ area of green cover} = (300/450) \times 100$$

$$= 67\%$$