

Level III -Mathematical Modeling

Group Activities

1. Drain water system
On rainy days, the Science Faculty entrance is blocked due to a lack of an adequate drainage system. Inspect the faculty premises and the entrance, and propose a suitable drain water system.
2. Waiting time problem
A long queue is observed at the coffee shop of the Faculty during rush hours. Propose a model to reduce the waiting time at the coffee shop.
3. Waste management problem
Large quantities of solid waste are generated daily at the Faculty premise, filling up the disposal area promptly. Create a model to find a better routine for waste-collecting trucks.
4. Parking problem
The faculty premise lacks proper parking lots, making it difficult to park especially when events take place. Find whether the faculty has sufficient parking space, and identify places within the premises for parking lots.
5. Lunch supply problem
The only place to buy lunch inside the Faculty is the coffee shop, which imposes the funny rule that the orders must be placed before 11 a.m India standard time. Assume a better supplier wants to start business here. How profitable would that be?