## Department of Electrical Engineering
## Sessional Assignment
## Course Details

**Course Title:**   Electric Power Distribution & Utilization        **Module:**        3ʳᵈ (BTech)

## Student Details

**Name:** _____        **Student ID:**  _____

**Q1:** A 2-wire D.C. distributor AB is fed from both ends. At feeding point A, the voltage is maintained as at A 240 V and at B 250 V. The total length of the distributor is 300 meters and loads are tapped off as under:

25 A at 50 meters from A;        50 A at 75 meters from A

30 A at 100 meters from A;        40 A at 150 meters from A

The resistance per kilometer of one conductor is 0·5 Ω. Calculate:

(i) Currents in various sections of the distributor

(ii) Minimum voltage and the point at which it occurs

**Q2:** A 2-wire D.C. distributor cable AB is 1 km long and supplies loads of 100A, 150A, 200A and 50A situated 500 m, 1000 m, 1500 m and 1000 m from the feeding point A. Each conductor has a resistance of 0·02Ω per 1000 m. Calculate the p.d. at each load point if a p.d. of 400 V is maintained at point A.