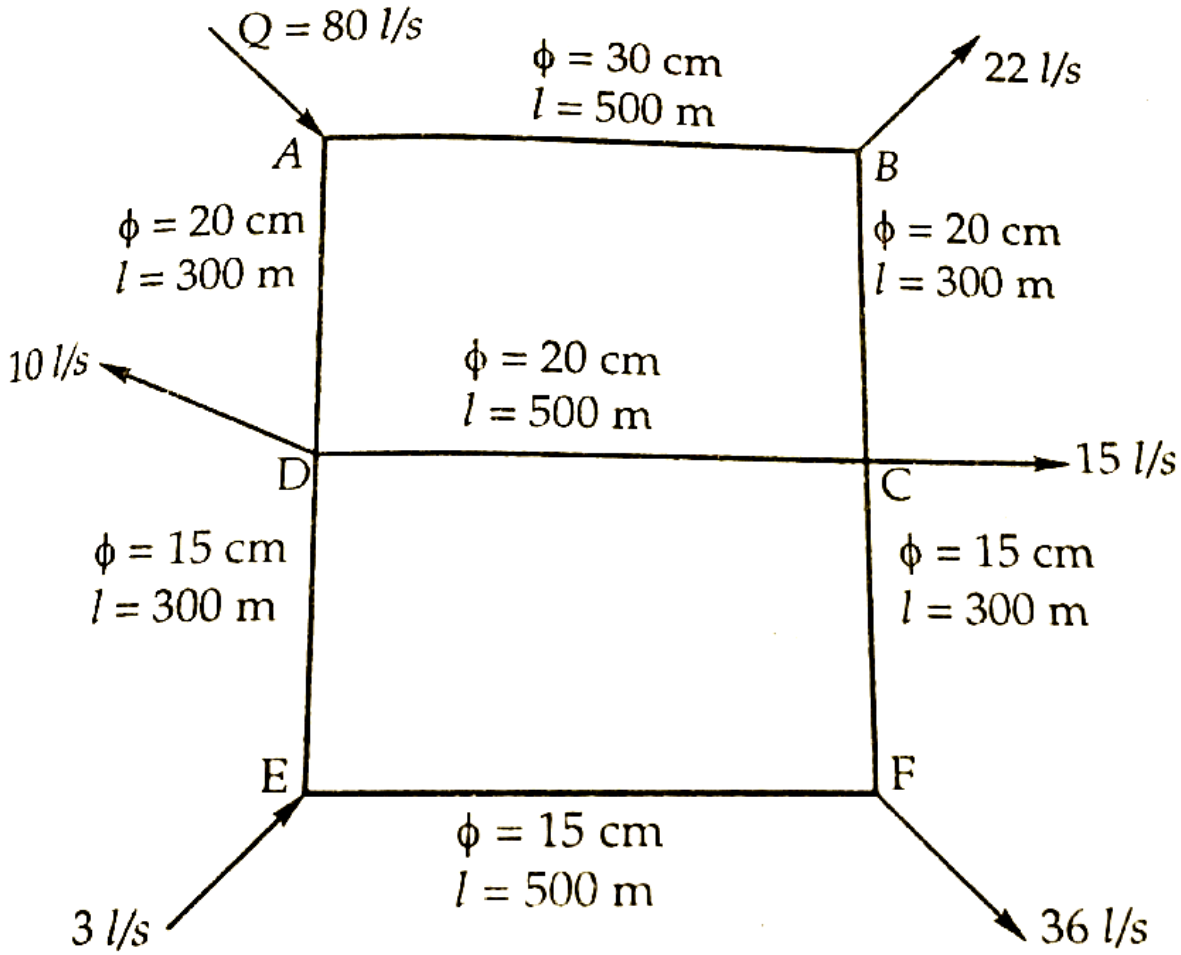
CE 412 A: Water Supply & Wastewater Disposal Systems

Tutorial – 2019-20 II

TUTORIAL 7

Problem 1: Calculate the head losses and the corrected flows in the various pipes of distribution networks shown in the fig. The diameter and the lengths of the pipes used are given against each pipe. Make use of Hardy-cross method with Williams Hazen's formula. Compute the corrected flows after two corrections.

Reduce level at various junctions, A=22m, B=26m, C=29m, D=25.5m, E=23m,F=22.5m.



Problem 2: Let ABCD represents a pipe circuit with the pipe sizes and lengths as shown in fig. Replace the whole network with a single equivalent pipe of given:

(i) Diameter = 300mm
(ii) Length = 400m
(iii) Material, C = 120