Universiti Malaysia PAHANG

HYDRAULICS

UNIFORM FLOW IN OPEN CHANNEL
EXERCISE
TOPIC 2.2

by

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Communitising Technology

Chapter 2:Uniform Flow in Open Channel by N Adilah A A Ghani

Exercise 2.3

A concrete lined trapezoidal channel has a bed width of 3.5m, side slope at 45° to the horizontal, a bed slope 1:1000 and Manning Roughness coefficient of 0.015. Calculate the normal depth of uniform flow when the discharge is 20 m^3/s. (Using Trial & Error Method).

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Exercise 2.4

Design a rectangular channel to be made of formed unfinished concrete with Manning's coefficient, 0.017 to carry 12 m^3/s of water when laid on a 1.2 percent slope. In the final design, the width was made 2 m. Determine the normal depth for this discharge.