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HYDRAULICS

UNIFORM FLOW IN OPEN CHANNEL EXERCISE

TOPIC 2.4

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

Communitising Technology

Exercise 2.7

A triangular channel will be design with $14 \text{ m}^3/\text{s}$ of flow rate along 5.5 km length and 2 m/s of velocity. The side slope of the channel is 45° . Determine the bed slope and normal depth for an effective cross section where the Manning's roughness coefficient is 0.013 . If this channel will be lined with bricks, determine the total bricks(pieces) required if 1 m^2 contain of 100 pieces of bricks.

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

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Exercise 2.8

A rectangular channel will be design with $14.2 \text{ m}^3/\text{s}$ of flow rate along 6.5km length and 2.25 m/s of velocity.

- i. Determine the channel slope, normal depth and width of an effective cross section.
- ii. If this channel will be lined with bricks which are 1m^2 area contain of 100 pieces of bricks. Determine the total bricks (pieces) are required in this channel.
($n = 0.016$)

