

Unit 5 - Week 3

Course outline

How to access the portal

Week 0 Assignment 0

Week 1

Week 2

Week 3

- Lecture 11 : Irrigation Water Conveyance
- Lecture 12 : Irrigation channel design
- Lecture 13 : Measurement of Irrigation Water: Open channel
- Lecture 14 : Measurement of Irrigation Water: Pipe
- Lecture 15 : Tutorial
- Lecture Material
- Quiz : Assignment 3
- Feedback for Week 3

Week 4

Week 5

Week 6

Week 7

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Week 12

Details Solution

Live Session

Assignment 3

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-08-21, 23:59 IST.

- 1) The continuity equation is based on the principle of 1 point
- a. Conservation of mass
b. Conservation of momentum
c. Conservation of energy
d. Conservation of force
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
a.
- 2) The flow condition when the Froude number is greater than 1 is 1 point
- a. Critical flow
b. Subcritical flow
c. Super-critical flow
d. No flow
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
c.
- 3) In a shallow stream, the velocity is recommended to be measured at 0 points
- a. 0.8 of the depth of water
b. 0.5 of the depth of water
c. 0.8 and 0.2 of the depth of water
d. 0.6 of the depth of water
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
d.
- 4) The value of the coefficient of discharge (C_d) in venturimeter is 1 point
- a. 0.75
b. 0.85
c. 0.97
d. 0.65
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
c.
- 5) In case of non-availability of space due to topography, the most suitable spillway is 1 point
- a. Shaft spillway
b. Chute spillway
c. Straight spillway
d. Ogee spillway
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
a.
- 6) A rectangular channel having a bed slope of 0.01% and Manning's roughness coefficient of 0.01 carries a discharge of $10 \text{ m}^3/\text{s}$. If the channel is designed as the most economical section, the width of the channel (meter) will be 1 point
- a. 4.1-4.2
b. 4.3-4.4
c. 2.1-2.2
d. 2.3-2.4
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
b.
- 7) A weir of 8 m long is to be built across a rectangular channel to discharge a flow of $9 \text{ m}^3/\text{s}$. If the maximum depth of water on the upstream side of weir is to be 2 m, what should be the height of the weir? Adopt $C_d = 0.62$. 1 point
- a. 0.28
b. 0.98
c. 1.28
d. 2.28
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
c.
- 8) A rectangular channel 2.5 m wide is conveying water at a depth of 1 m, and discharge $5 \text{ m}^3/\text{sec}$. Determine the specific energy of the flow (in m). 1 point
- a. 1.5-1.6
b. 1.5-1.6
c. 1.2-1.3
d. 1.2-1.3
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
d.
- 9) Find the slope of the bed of a rectangular channel 5 m when depth of water is 2 m and rate of flow is given as $20 \text{ m}^3/\text{s}$. Take Chezy's constant, $C = 50$. 1 point
- a. 0.144
b. 0.0144
c. 0.00144
d. 0.000144
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
c.
- 10) Determine the head loss (in m) due to friction in an irrigation pipe having 200 m length and 20 cm diameter. The velocity of flowing water in the pipe is 1 m/s. Assume $F = 0.025$ (as of cast iron). 1 point
- a. 1.2-1.3
b. 1.3-1.4
c. 1.4-1.5
d. 1.5-1.6
- a.
 b.
 c.
 d.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
a.