

Unit 10 - Week 8

Course outline

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- Lecture 36 : Management of salt affected soils: Saline and alkali soils-1

- Lecture 37 : Management of salt affected soils: Saline and alkali soils-1

- Lecture 38 : Agricultural Drainage: Related Concepts

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Assignment 8

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

Due on 2019-09-25, 23:59 IST.

1) Saline soil can be reclaimed by _____

1 point

- a. Leaching
- b. Scrapping
- c. Adding gypsum
- d. By growing salt-tolerant crops

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

2) The salt concentration equivalent to 1 dS/m is approximately _____

1 point

- a. 640 ppm
- b. 460 ppm
- c. 604 ppm
- d. 406 ppm

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

3) Soil water stress coefficient varies from ____

1 point

- a. 1-2
- b. 0-∞
- c. 1-0
- d. None of the above

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

4) The pressure at the water table is always

1 point

- a. =Atmospheric pressure
- b. > Atmospheric pressure
- c. <Atmospheric pressure
- d. None of the above

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

5) What is the Darcy's Law assumption_____?

1 point

- a. Soil is saturated
- b. Flow-through soil is laminar
- c. Flow is continuous and steady
- d. All of the above

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.

6) If an irrigation water source has concentrations of Na^+ and Ca^{++} as 30 and 15 milliequivalents per liter, respectively, and the Sodium adsorption ratio (SAR) of this water is 9.5 milliequivalents per liter. Calculate the Mg^{++} concentrations in an irrigation water source.

1 point

- a. 12 milliequivalents per liter
- b. 5 milliequivalents per liter
- c. 15 milliequivalents per liter
- d. 9.5 milliequivalents per liter

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

7) A tile drainage system draining 8 ha flows at a design capacity for two days in response to a storm. If the system is designed using a drainage coefficient of 0.75 cm/day, the amount of water removed from the drainage area during two days is (in m^3)

1 point

- a. 3000
- b. 1200
- c. 600
- d. 2200

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

8) A rice crop is planted in sandy clay soil and irrigated from river water. The EC of the river water at the time of irrigation is 2.5 dS/m. The crop ET during the growing season is 55 cm. If EC_e for 100% yield potential of rice is 6, the additional water applied (in cm) for leaching will be

1 point

- a. 50-55
- b. 55-60
- c. 60-65
- d. 65-70

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

c.

9) In a subsurface drainage network, 10 lateral drains laid at a spacing of 40 m and each 150 m long, join a collector drain. The average discharge at the outlet of the collector drain was 10 L/s when the water table dropped from the ground surface to 40 cm below the ground surface in 3 days. Find the average drainable porosity of the soil.

1 point

- a. 4-5%
- b. 10-11%
- c. 15-16%
- d. 19-20%

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

10) Estimate the actual yield of a rice variety which is grown in a field having EC of soil saturate (EC_e) as 10 dS/m and critical salinity level above which the yield reduction starts (EC_t) as 6 dS/m. The salinity level at which yield becomes zero is 20 dS/m, and potential yield in a nonsaline situation is 5.0 t/ha.

1 point

- a. 3.57 t/ha
- b. 0.714 t/ha
- c. 5.57 t/ha
- d. 0.57 t/ha

- a.
- b.
- c.
- d.

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.