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**Question Paper Code: 54104**

B.E. / B.Tech. DEGREE EXAMINATION, SEP 2019

Fourth Semester

Civil Engineering

15UCE404- WATER RESOURCES AND IRRIGATION ENGINEERING

(Regulation 2015)

Duration: One hours

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

1. The soil moisture useful for plant growth is CO1- R  
(a) gravity water (b) addition of gypsum to soil  
(c) capillary water (d) all of these
2. With the increase in supplied irrigation water, the yield of crops CO1- R  
(a) Increases continuously (b) Increases upto a certain and then becomes constant.  
(c) Decreases continuously (d) increases up to a certain limit and then decreases
3. The most expected crops in a hot arid district of Rajasthan State in India, in the month of September are CO2- R  
(a) Rice and sugarcane (b) Bazar and maize  
(c) Wheat and maize (d) Tobacco and cotton
4. The duty of irrigation water for a given crop is maximum CO2- R  
(a) on the field (b) at the head of the water course  
(c) at the head of main canal (d) at all place
5. If two canals are taken off from both the flanks of a river at the side of a diversion headwork, then the number of undersluices and divide walls will respectively be CO3- R  
(a) 1 and 1 (b) 1 and 2 (c) 2 and 1 (d) 2 and 2
6. The famous arch dam in India is at CO3- R  
(a) bhakra (b) khadakvasla (c) idikki (d) nagarjuna sagar

7. A canal escape is a structure constructed for the purpose of CO4- R  
 (a) dissipating excess energy (b) acting as a forebay  
 (c) discharging wastewater from the canal (d) all of the above
8. Silt excluders are constructed CO4- R  
 (a) On the river bed downstream of the head regulator  
 (b) On the river bed upstream of the head regulator  
 (c) On the canal bed downstream of the canal head regulator  
 (d) None of these
9. The process of reclamation of saline soil is known as CO5- R  
 (a) leaching (b) gypsum neutralises (c) surcharge (d) sub-surface drainage
10. Over irrigation is responsible for CO5- R  
 (a) seepage (b) water logging  
 (c) water management (d) permeability

PART – B (3 x 8= 24Marks)

**(Answer any three of the following questions)**

11. Describe the soil water potential and its components CO1- U (8)
12. Derive the relationship between duty and delta. CO2- U (8)
13. Differentiate between weir and barrage CO3- U (8)
14. Discuss the various classifications in canals. CO4- U (8)
15. Write short note on participatory irrigation management CO5- U (8)