

Reg. No. :

--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 31156**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Fifth Semester

Civil Engineering

01UCE506 – IRRIGATION ENGINEERING

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What do you mean by retention of water in soil?
2. What is the need for irrigation?
3. What is meant by consumptive use of water?
4. Differentiate between crop period and base period.
5. Distinguish between weir and barrage.
6. Define diversion headwork.
7. What is canal drop?
8. When the channel is said to be in regime?
9. Define on-farm water management.
10. What is command area development?

PART - B (5 x 16 = 80 Marks)

11. (a) Describe the method of soil water measurement stating the methods most commonly followed. (16)

Or

- (b) Explain the Physical properties of soil that influence soil moisture characteristics. (16)

12. (a) Enumerate the different components of irrigation efficiency and give the mathematical expressions. (16)

Or

- (b) Briefly explain about planning and development of irrigation project. (16)

13. (a) What are the different forces that may act on gravity dam? Discuss with sketches and write down the expressions of the forces. (16)

Or

- (b) Briefly explain about Weirs and Spillways with neat sketch. (16)

14. (a) Explain the design features of cross drainage works. (16)

Or

- (b) Explain its design procedure of a stable channel. Also list the defects in Lacey's theory. (16)

15. (a) What kinds of participation are necessary for irrigation management activities? Explain in detail. (16)

Or

- (b) State the difference between modernization and rehabilitation. Also explain the modernization techniques in detail. (16)
-