Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **17AG1005** | **Duration :** | **3hrs** |
| **Sub. Name :** | **IRRIGATION WATER MANAGEMENT** | **Max. Marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
| **PART – A (20 X 1 = 20 MARKS)** | | | |
| 1. | What is meant by vapor movement of water into the soil? | CO1 | 1 |
| 2. | 1 m3 = \_\_\_\_\_\_\_\_\_ of lit of water. | CO1 | 1 |
| 3. | The lateral movement of water in soil is \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 4. | Average rainfall of India is \_\_\_\_\_\_\_\_\_\_ mm. | CO1 | 1 |
| 5. | How to calculate actual ET ? | CO3 | 1 |
| 6. | Drum culture techniques is mainly used for \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 7. | Name the indirect method of estimation of ET. | CO1 | 1 |
| 8. | Write the formula to calculate NWR. | CO2 | 1 |
| 9. | Write the critical stages for irrigation for sunflower crop. | CO2 | 1 |
| 10. | Water requirement for cotton is \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 11. | Why SAR is needed for irrigation water quality assessment? | CO2 | 1 |
| 12. | Write the formula for water application efficiency. | CO3 | 1 |
| 13. | State the difference between rainfall and effective rainfall. | CO3 | 1 |
| 14. | State the difference between irrigation and fertigation. | CO2 | 1 |
| 15. | Expand the term Kc. | CO1 | 1 |
| 16. | Name any two advantages of sprinkler method of irrigation. | CO2 | 1 |
| 17. | Suitability of irrigation water is based on \_\_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 18. | The Father of drip irrigation is \_\_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 19. | What is the difference between ET and ETo? | CO1 | 1 |
| 20. | What is FCWUE? | CO2 | 1 |

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| **PART – B (10 X 5 = 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | Write down the role of water in plants. | CO1 | 5 |
| 22. | How to manage water deficit in plants. | CO3 | 5 |
| 23. | What is irrigation budgeting? | CO1 | 5 |
| 24. | Define critical stages of irrigation with any three field crops and its critical stages. | CO2 | 5 |
| 25. | Explain direct method of moisture estimation. | CO1 | 5 |
| 26. | Differentiate between pH and pf value and its importance in irrigation management. | CO1 | 5 |
| 27. | Write notes on tensiomter. | CO2 | 5 |
| 28. | Differentiate between drip and springler irrigation system. | CO2 | 5 |
| 29. | Define drainage. Explain the subsurface drainage. | CO1 | 5 |
| 30. | Explain the soil moisture availability. | CO2 | 5 |
| 31. | How to transfer water from soil to plant system. | CO3 | 5 |
| 32. | Define WR. How to calutate WR? | CO1 | 5 |

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| **PART – C (2 X 15 = 30 MARKS)**  **(Answer any 2 from the following)** | | | | |
| 33. | a. | Discuss SCPAC. | CO1 | 8 |
| b. | Explain the water movement in the soil. | CO2 | 7 |
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| 34. | a. | Define irrigation scheduling and how to schedule the irrigation water. | CO1 | 8 |
| b. | Discuss the traditional methods of micro irrigation. | CO2 | 7 |
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| 35. | a. | Explain the water management for rice crop. | CO3 | 8 |
| b. | Write notes on water quality and its parameters. | CO3 | 7 |