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

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

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| **Code :** | **18AT2035** | **Duration :** | **3hrs** |
| **Sub. Name :** | **SOIL AND WATER CONSERVATION** | **Max. Marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
| **PART – A (20X1=20 MARKS)** | | | |
| 1. | Define the leveled and table top bench terrace. | CO3 | 1 |
| 2. | Write about the measurement of soil erosion by Multi-slot divisor. | CO2 | 1 |
| 3. | What are the factors affecting wind erosion? | CO3 | 1 |
| 4. | What is shelter belt? | CO2 | 1 |
| 5. | Write about Universal Soil Loss Equation. | CO2 | 1 |
| 6. | Differentiate between run off and flood water harvesting. | CO2 | 1 |
| 7. | Define sheet erosion. | CO3 | 1 |
| 8. | Write a note on types of graded terrace. | CO2 | 1 |
| 9. | Write any four runoff measuring devices. | CO2 | 1 |
| 10. | Explain Modified Universal Soil Loss Equation. | CO3 | 1 |
| 11. | Write a note on soil erodibility. | CO3 | 1 |
| 12. | Define contour interval. | CO2 | 1 |
| 13. | What are the different stages involved in gully development? | CO3 | 1 |
| 14. | Write a note on splash erosion. | CO3 | 1 |
| 15. | What is grassed waterway? | CO3 | 1 |
| 16. | What is meant by rainfall erosivity? | CO2 | 1 |
| 17. | Write the importance of soil conservation. | CO1 | 1 |
| 18. | Give the various approaches for erodibility determination. | CO3 | 1 |
| 19. | Explain rill erosion. | CO3 | 1 |
| 20. | Write about stream bank erosion. | CO3 | 1 |

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| **PART – B (10 X 5 = 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | Explain in detail the estimation methods of rainfall erosivity by EI30 and KE > 25 Index method. | CO3 | 5 |
| 22. | Enumerate the applications and limitations of Universal soil loss equation. | CO2 | 5 |
| 23. | Explain the mechanical measures for controlling water erosion. | CO3 | 5 |
| 24. | Describe in detail the designing and alignment of bench terraces. | CO3 | 5 |
| 25. | Find out the wind velocity at 10 and 15 m height from ground surface over a wheat cropped field of plants height 1.3 m and friction velocity of 6 m/s. | CO2 | 5 |
| 26. | Explain in detail the classification of gullies. | CO3 | 5 |
| 27. | Explain the types of water harvesting and give their importance. | CO2 | 5 |
| 28. | Explain in detail the Land capability classification. | CO3 | 5 |
| 29. | Give short notes on the agronomic measures to control water erosion. | CO2 | 5 |
| 30. | Discuss in detail the types of soil erosion. | CO3 | 5 |
| 31. | Describe the mechanics of wind erosion. | CO3 | 5 |
| 32. | Give short notes on the methods of contouring. | CO2 | 5 |

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|  | **PART – C (2 X 15 = 30 MARKS)**  **(Answer any 2 from the following)** | | | |
| 33. | a. | Discuss in detail the causes and factors affecting soil erosion. | CO3 | 15 |
| b. | Discuss in detail the gully control measures and their classification. | CO2 |
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| 34. | a. | Give an account on the water harvesting techniques. | CO2 | 15 |
| b. | Describe in detail:   1. Specifications for designing bund 2. Construction of bund. | CO3 |
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| 35. | a. | Explain in detail the factors associated with Universal soil loss equation. | CO2 | 15 |
| b. | Explain in detail the designing of grassed waterways. | CO3 |