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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **17AG1011** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTRODUCTION TO SOIL SCIENCE** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
|  | **PART-A(20X1=20 MARKS)** | | |
| 1. | Who postulated Nebular hypothesis theory? | CO1 | 1 |
| 2. | Define Weathering. | CO1 | 1 |
| 3. | List out the layers of earth. | CO1 | 1 |
| 4. | What is soil pedology? | CO2 | 1 |
| 5. | Explain the term Regolith. | CO2 | 1 |
| 6. | Differentiate bulk density and particle density. | CO2 | 1 |
| 7. | Define the term soil consistence. | CO2 | 1 |
| 8. | Give one example for Metamorphic rocks. | CO2 | 1 |
| 9. | What are clods? | CO1 | 1 |
| 10. | Draw silica tetrahedran structure. | CO2 | 1 |
| 11. | Explain Permanent wilting point ? | CO1 | 1 |
| 12. | Which are the two types of pore spaces? | CO2 | 1 |
| 13. | Name the colour chart to determine soil colour | CO1 | 1 |
| 14. | Define the term Micelle. | CO2 | 1 |
| 15. | What is albedo? | CO2 | 1 |
| 16. | Define soil structure | CO2 | 1 |
| 17. | Example for sedimentary rocks. | CO2 | 1 |
| 18. | What is soil aggregate? | CO2 | 1 |
| 19. | Name the two types of Igneous rocks. | CO1 | 1 |
| 20. | Expand AEC. | CO2 | 1 |

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| **PART B(10 X 5= 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | Discuss about physical weathering process. | CO2 | 5 |
| 22. | Explain the fundamental soil forming processes. | CO2 | 5 |
| 23. | Write in detail soil humus. | CO3 | 5 |
| 24. | Explain about the soil Mycorrhizae. | CO3 | 5 |
| 25. | Write about classification of sedimentary rocks. | CO2 | 5 |
| 26. | Discuss about soil texture and structure. | CO2 | 5 |
| 27. | Write about importance of soil microfauna. | CO3 | 5 |
| 28. | Differentiate continental drift and tectonic plate theory. | CO1 | 5 |
| 29. | Explain about the general properties of colloids. | CO2 | 5 |
| 30. | Define Eluviation and Illuviation. | CO2 | 5 |
| 31. | List out the classification of layer silicate clays | CO2 | 5 |
| 32. | Elaborate the C cycle with neat diagram. | CO3 | 5 |

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| **PART C(2 X 15= 30 MARKS)**  **(Answer any 2 from the following)** | | | | |
| 33. | a. | Write about the importance and implications of soil C:N ratio. | CO3 | 8 |
| b. | Discuss about soil macrofauna. | CO3 | 7 |
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| 34. | a. | Explain about the interior and exterior parts of planet Earth. | CO1 | 8 |
| b. | Elaborate the classification of rocks. | CO1 | 7 |
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| 35. | a. | Explain any four special soil forming processes. | CO2 | 8 |
| b. | Illustrate with neat diagram the soil profile. | CO2 | 7 |