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

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**End Semester Examination – Apr/May – 2018**

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| **Code :** | **17AG1003** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF PLANT BIOCHEMISTRY** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | | **Course Outcome** | **Marks** |
|  | | **PART-A(10X1=10 MARKS)** | | |
| 1. | The membrane surrounding the vacuole is known as ------------ | | CO2 | 1 |
| 2. | Give one example of imino acid? | | CO1 | 1 |
| 3. | Oxidative photophosphorylation takes place in --------- | | CO1 | 1 |
| 4. | Name the other term for fats and oils? | | CO3 | 1 |
| 5. | Give one example for unsaturated fatty acid? | | CO3 | 1 |
| 6. | The materials used for immobilization of enzymes are called ----------- | | CO3 | 1 |
| 7. | Who Proposed lock and key theory? | | CO3 | 1 |
| 8. | The synthesis of RNAs from DNA is called ----------------- | | CO3 | 1 |
| 9. | ------------ path way is an important pathway in plants through which many secondary plant products are synthesized. | | CO1 | 1 |
| 10. | The diterpene plant hormone is --------------------- | | CO1 | 1 |

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|  | | **PART B(5 X 3= 15 MARKS)** | | | | |
| 11. | Define cell theory? | | CO2 | 3 | |
| 12. | What are the six major classes of enzyme in enzyme classification? | | CO3 | | 3 | |
| 13. | Write short notes on zwitterion with example? | | CO3 | | 3 | |
| 14. | Define Oxidative Phosphorylation and Gluconeogenesis? | | CO1 | | 3 | |
| 15. | What are secondary metabolites? and name any five groups of Secondary Compounds? | | CO1 | | 3 | |

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|  | | **PART C(5 X 15= 75 MARKS)** | | | |
| 16. |  | | Explain in detail the structure and functions of plant cell and its cell organelles with a neat diagram? | CO2 | 15 |
|  | | (OR) | | | |
| 17. |  | | Describe the classification and properties of amino acids? | CO3 | 15 |
| 18. |  | | Explain in detail how pyruvic acid is oxidativelydecarboxylated and get oxidized in TCA cycle? Indicate the enzymes and cofactors at appropriate places? | CO1 | 15 |
|  | | (OR) | | | |
| 19. | a. | | Explain the mechanism of enzyme action with example? | CO3 | 8 |
| b. | | Describe the different factors influencing enzyme-catalysed reaction? | CO3 | 7 |
| 20. |  | | Explain in detail the classification, functions and industrial application of lipids? | CO3 | 15 |
|  | | (OR) | | | |
| 21. |  | | Describe the hexose monophosphate shunt and add a note on its significance? | CO1 | 15 |
| 22. |  | | What are the importance of plant phenolics derived through shikimate path way? | CO1 | 15 |
|  | | (OR) | | | |
| 23. |  | | Comment on the role of respiratory chain of mitochondria in the conversion of food energy to ATP. | CO1 | 15 |
| 24. |  | | Describe the Biosynthesis of long chain fatty acids? | CO1 | 15 |
|  | | (OR) | | | |
| 25. |  | | Discuss the structure of proteins and explain its properties ? | CO3 | 15 |