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

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

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

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
|  | **PART-A(20X1=20 MARKS)** | | |
| 1. | “Father of Biochemistry” is \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 2. | Name the first compound synthesized in the lab. | CO1 | 1 |
| 3. | Name the coloured organelle in a plant cell. | CO1 | 1 |
| 4. | The Sulphur containing amino acids are \_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 5. | Electron transport chain occurs in \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 6. | Give an example for metalloprotein. | CO3 | 1 |
| 7. | The term enzyme was coined by \_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 8. | Short newly synthesized fragments that are formed on the lagging strand during replication are \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 9. | Name a secondary metabolite compound. | CO1 | 1 |
| 10. | State an example for simple lipid. | CO3 | 1 |
| 11. | Protein synthesis occurs in \_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 12. | In plants, cell wall is made of \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 13. | \_\_\_\_\_\_\_\_\_\_ is the most widely accepted model of DNA replication | CO2 | 1 |
| 14. | The stable conformation in carbohydrates is \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 15. | If the substrate concentration is increased the rate of the enzyme catalyzed reaction will be \_\_\_\_\_\_\_\_\_\_. | CO3 | 1 |
| 16. | The membrane surrounding vacuole is called \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 17. | The synthesis of carbohydrate compounds from non carbohydrate precursors is called \_\_\_\_\_\_\_\_\_\_. | CO2 | 1 |
| 18. | The storage polysaccharide in plants is \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 19. | Phenols are synthesized by \_\_\_\_\_\_\_\_\_\_ pathway. | CO2 | 1 |
| 20. | Name an enzyme immobilization technique. | CO4 | 1 |

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| **PART B(10 X 5= 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | State the cell theory. | CO1 | 5 |
| 22. | Explain the lock and key model of enzyme action. | CO3 | 5 |
| 23. | Write a note on phenyl hydrazine test. | CO1 | 5 |
| 24. | Categorize the amino acids based on their metabolic fate with an example. | CO3 | 5 |
| 25. | State the different enzyme classes. | CO3 | 5 |
| 26. | Elaborate the different enzyme immobilization technique. | CO4 | 5 |
| 27. | Identify the role of cell wall in food, paper and fuel industry. | CO4 | 5 |
| 28. | Describe the protein structure. | CO3 | 5 |
| 29. | List the applications of lipids in industry. | CO4 | 5 |
| 30. | Explain how DNA is replicated in plants. | CO2 | 5 |
| 31. | Tell the properties of lipids. | CO3 | 5 |
| 32. | Compare and contrast oligosaccharide from polysaccharide. | CO2 | 5 |

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| **PART C(2 X 15= 30 MARKS)**  **(Answer any 2 from the following)** | | | | |
| 33. |  | Describe the plant cell and its organelle with a neat diagram. | CO1 | 15 |
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| 34. | a. | What is glycolysis and where does it takes place. | CO2 | 5 |
| b. | Discuss the conversion of glucose to pyruvic acid by indicating the enzyme involved in each step. | CO2 | 10 |
|  |  |  |  |  |
| 35. | a. | Classify the proteins based on their function. | CO3 | 8 |
| b. | Illustrate the colour reactions of protePins. | CO3 | 7 |