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

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| **Code :** | **18AG1004** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF PLANT BIOCHEMISTRY** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
|  | **PART-A (20 x1=20 MARKS)** | | |
| 1. | Which is called the power house of the cell? | CO1 | 1 |
| 2. | What are the monosaccharides present in sucrose, maltose. | CO3 | 1 |
| 3. | Define a reducing sugar. | CO3 | 1 |
| 4. | Where does glycoloysis and TCA cycle occur in a cell? | CO2 | 1 |
| 5. | Define gluconeogenesis. | CO2 | 1 |
| 6. | Give two examples of aromatic amino acids. | CO3 | 1 |
| 7. | What are simple proteins? | CO3 | 1 |
| 8. | What are essential amino acids? | CO3 | 1 |
| 9. | Define amphoteric nature of protein. | CO3 | 1 |
| 10. | What is a triglyceride? | CO3 | 1 |
| 11. | List out the essential fatty acids. | CO3 | 1 |
| 12. | What are enzymes? | CO3 | 1 |
| 13. | Define Michaelis Menten constant. | CO3 | 1 |
| 14. | What is a nucleotide? | CO3 | 1 |
| 15. | Define transcription. | CO3 | 1 |
| 16. | Which are the stop codons? | CO3 | 1 |
| 17. | Define activation energy | CO3 | 1 |
| 18. | List any two factors affecting the rate of enzyme catalyzed reaction. | CO3 | 1 |
| 19. | What is the chemical name of the nucleus in steroid molecule? | CO3 | 1 |
| 20. | What is emulsification? | CO3 | 1 |

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|  | **PART B (10 x 5= 50 MARKS)**  **(Answer any 10 from the following)** | | |
| 21. | Describe the structure of starch. | CO3 | 5 |
| 22. | Outline the reactions of glycolysis. | CO2 | 5 |
| 23. | Classify amino acids based on polarity. | CO3 | 5 |
| 24. | Describe the secondary structure of proteins. | CO3 | 5 |
| 25. | Explain the mechanism of enzyme action. | CO3 | 5 |
| 26. | Write a note on phospholipids and its importance. | CO3 | 5 |
| 27. | Explain mutarotation in sugars. | CO3 | 5 |
| 28. | Explain the central role of TCA cycle in metabolism. | CO2 | 5 |
| 29. | Write a note on the digestion of proteins. | CO3 | 5 |
| 30. | Briefly describe the structure and function of insulin. | CO3 | 5 |
| 31. | Classify vitamins and list their functions. | CO3 | 5 |
| 32. | Write a note on genetic code. | CO3 | 5 |

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|  | **PART C (2 x 15= 30 MARKS)**  **(Answer any 2 from the following)** | | | |
| 33. | a. | Give the reactions of TCA cycle. | CO2 | 8 |
| b. | Give the classification of lipids. | CO3 | 7 |
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| 34. | a. | Classify enzymes and give examples. | CO3 | 8 |
| b. | Describe the tertiary and quaternary structure of proteins. | CO3 | 7 |
|  |  |  |  |  |
| 35. | a. | Describe the Watson – Crick model of DNA. | CO3 | 8 |
| b. | Explain the process of translation. | CO3 | 7 |