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



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

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| **Code :** | **18FP2002** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FOOD CHEMISTRY** | **Max. Marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
| **PART – A (10 X 1 = 10 MARKS)** | | | |
| 1. | What is the H-O-H angle in water? | CO2 | 1 |
| 2. | How is ERH related to vapour pressure? | CO3 | 1 |
| 3. | Give the name of the disaccharide which is exclusively present in milk. | CO1 | 1 |
| 4. | What is DE? | CO3 | 1 |
| 5. | Which of the fatty acid is rich in coconut oil? | CO1 | 1 |
| 6. | Give an example for a ω-6 fatty acid. | CO1 | 1 |
| 7. | Give an example an imino acid. | CO1 | 1 |
| 8. | Give an example for a hydrophobic protein. | CO1 | 1 |
| 9. | Give two examples for foods rich in Vitamin A. | CO1 | 1 |
| 10. | What is Vitamin B­2 also called as? | CO1 | 1 |

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|  | **PART – B (6 X 3 = 18 MARKS)** | | |
| 11. | What is an isotherm? | CO4 | 3 |
| 12. | Explain the conditions under which glucose is converted to gluconic acid. | CO1 | 3 |
| 13. | What is saponification value? Explain its significance. | CO3 | 3 |
| 14. | Summarise the characteristics of the β–pleated structure of proteins. | CO4 | 3 |
| 15. | Outline the principle of ascorbic acid estimation by Tillman’s dye. | CO3 | 3 |
| 16. | Differentiate between anthocyanins and betalains. | CO1 | 3 |

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| **PART – C (6 X 12= 72 MARKS)**  **(Answer any five Questions from Q.no 17 to 23. Q.No 24 is a Compulsory Question)** | | | | |
| 17. | a. | Outline in brief the structure of water. | CO1 | 6 |
| b. | Mr. A, needs some clarification of the Zone II of hysteresis curve. Explain him the same. | CO2 | 6 |
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| 18. |  | Outline in detail the steps involved in the manufacture of High Fructose Corn syrup. | CO3 | 12 |
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| 19. |  | Mr. X wants your expertise on the manufacture of edible groundnut oil. Explain in detail the process for the same. | CO3 | 12 |
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| 20. | a. | Summarise the basics regarding helical structure of proteins. | CO3 | 6 |
| b. | Mr. Y observed that milk splits on addition of lime juice. Explain the theory behind this observation and the factors affecting the same. | CO5 | 6 |
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| 21. | a. | It is told that it is better to wash green vegetables and cut rather than doing it the other way. Explain why? | CO6 | 4 |
| b. | Summarise the factors that affect the stability of fat-soluble vitamins. | CO4 | 8 |
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| 22. | a. | Miss Z, observed browning of her peanuts on roasting. Explain her on the basic concepts behind this browning. | CO4 | 4 |
| b. | Miss Z also found that potatoes get soft on boiling. Explain the basic concepts behind the same. | CO6 | 8 |
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| 23. |  | Discuss in detail on the functional properties of food proteins. | CO5 | 12 |
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|  | **Compulsory:** | | | |
| 24. | a. | Green leaves turn brown during heating and during fermentation. Explain the phenomenon behind the same. | CO4 | 6 |
| b. | Briefly discuss on the stability of anthocyanins to changes in pH.  Question No.24 from Module 6 | CO6 | 6 |