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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**Supplementary Examination – June – 2017**

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| **Code :** | **14FP2002** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FOOD CHEMISTRY** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | Define dispersed system? Illustrate the functional properties of gels with suitable examples. | CO2 | 20 |
| (OR) | | | | |
| 2. | a. | Illustrate the structure and properties of cellulose. | CO1 | 10 |
| b. | Explain in detail about starch and its hydrolytic products. | CO1 | 10 |
| 3. | a. | With a help of neat flow diagram, discuss in detail on the production of maltodextrins. | CO2 | 10 |
|  | b. | Define sorption isotherm? and contrast the zones of moisture sorption isotherm in food system. | CO3 | 10 |
| (OR) | | | | |
| 4. | a. | With a process chart, explain the manufacture of refined edible oils. | CO3 | 10 |
|  | b. | Discriminate the chemical properties of fats and oils with suitable reaction steps. | CO2 | 10 |
| 5. |  | Review the types and prevention of rancidity and give the role of antioxidants. | CO3 | 20 |
| (OR) | | | | |
| 6. | a. | Summarize the structural organization of protein with a neat diagram. | CO2 | 10 |
|  | b. | Draw and discuss the enzyme immobilization techniques and their application in food industry. | CO3 | 10 |
| 7. |  | Define denaturation of proteins. List the physical and chemical agents of denaturation. | CO1 | 20 |
| (OR) | | | | |
| 8. | a. | Explain in detail the sources, structure and functions of fat soluble vitamins. | CO1 | 10 |
|  | b. | Describe the sources nutritional value, requirement and deficiency diseases of vitamin B12 | CO1 | 10 |
|  | | **Compulsory:** |  |  |
| 9. |  | Elaborate on the structure of the different forms of water and their importance in foods | CO2 | 20 |

ALL THE BEST