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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

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

**End Semester Examination – Nov/Dec – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14FP2027** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FOOD ADDITIVES** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | How do you classify food additives based on their functions? | CO1 | 15 |
| b. | What is NOEL? | CO1 | 5 |
| (OR) | | | | |
| 2. | a. | Discuss the application of PFA, GRAS and ADI in food additives. | CO1 | 15 |
| b. | Write a note on LD50. | CO1 | 5 |
| 3. | a. | What are two types of preservatives? Discuss in detail about natural preservatives. | C02 | 15 |
|  | b. | Define emulsifiers with an example. | CO1 | 5 |
| (OR) | | | | |
| 4. | a. | Describe in detail the various antioxidants and its role, used in food products. | CO3 | 15 |
|  | b. | What are acids used for other than to provide sourness? | CO2 | 5 |
| 5. | a. | Explain the chemical properties, types and levels of additions of dough conditioners. | CO3 | 15 |
|  | b. | Write note on humectants. | CO1 | 5 |
| (OR) | | | | |
| 6. | a. | Explain the chemical properties, types and levels of additions of flour improvers. | CO3 | 15 |
|  | b. | Mention the significance of enzymes in baking. | CO1 | 5 |
| 7. | a. | Write a brief note on fat replacers and substitutes. | CO1 | 15 |
|  | b. | List the characteristics of a perfect sweetener. | CO1 | 5 |
| (OR) | | | | |
| 8. | a. | Give examples for nutritive and non – nutritive sweeteners, their safety aspects and application in food systems. | CO3 | 15 |
|  | b. | How to maintain food quality with chelating agents. | CO1 | 5 |
|  | | **Compulsory:** |  |  |
| 9. |  | What are anti browning agents? Explain them in detail. | CO1 | 20 |

ALL THE BEST