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 – April/May – 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **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. | Briefly explain the various classes, functions and importance of food additives with an example. | CO1 | 17 |
| b. | State the concept of LD50. | CO3 | 3 |
| (OR) | | | | |
| 2. | a. | Explain the goals, scope and purpose of estimation of food additive intake. | CO3 | 14 |
| b. | Describe the different methods for determining toxicity of food additives. | CO3 | 6 |
| 3. | a. | Enumerate the chemical properties, application, toxicity and levels of addition of acidulants in food preservation. | CO3 | 15 |
|  | b. | Discuss briefly on Class I and Class II preservatives. | CO1 | 5 |
| (OR) | | | | |
| 4. | a. | Describe in detail the various types of emulsifiers with its application in food products. | C02 | 10 |
|  | b. | Discuss in detail about HLB Concept. | CO1 | 10 |
| 5. | a. | Briefly discuss about different categories of dough conditioner. | CO2 | 15 |
|  | b. | Enumerate the types and functions of humectants. | CO2 | 5 |
| (OR) | | | | |
| 6. | a. | Elaborate on the functions of flour improvers. | CO2 | 10 |
|  | b. | Classify flour improvers according to their complexity. | CO2 | 10 |
| 7. |  | Elaborate in detail about colorants and its uses in food products. | CO2 | 20 |
| (OR) | | | | |
| 8. | a. | Discuss in detail about flavourants and its application in food. | CO2 | 10 |
|  | b. | Briefly discuss about flavor enhancers. | CO2 | 10 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Describe about the different types of sweeteners used in food. | CO2 | 15 |
|  | b. | Explain about the functions of chelating agents in food. | CO2 | 5 |

ALL THE BEST