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



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

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| **Code : 14FP2027** |  | **Duration :** | **3hrs** |
| **Sub. Name : FOOD ADDITIVES** |  | **Max. Marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Categorize the types of food additives with a special mention about their applications. | CO1 | 15 |
| b. | Annotate the goals of food additive intake assessment. | CO1 | 5 |
| **(OR)** | | | | |
| 2. | a. | Summarize the methods of estimating dietary intake of additives. | CO1 | 15 |
| b. | Give a short note on (i) NOEL  (ii) LD 50 | CO1 | 3+2 |
|  |  |  |  |  |
| 3. | a. | Classify the types of acidulants. Mention their chemical properties. | CO2 | 8 |
| b. | Identify the applications of the following Organic acids:  (i) Citric acid (ii) Benzoic acid  (iii) Propionic acid (iv) Acetic acid | CO2 | 12 |
| **(OR)** | | | | |
| 4. | a. | Attribute the applications of Nisin and Natamycin. | CO2 | 8 |
| b. | Tabulate the chemical name, application, specification and toxicology of antimicrobial agents. | CO2 | 12 |
|  |  |  |  |  |
| 5. | a. | Outline the grouping of emulsion and mention the fuctions of emulsifiers as food additive. | CO2 | 8 |
| b. | Determine the mechanism of destabilization of emulsions. |  | 12 |
| **(OR)** | | | | |
| 6. | a. | Appraise the functions, applications and specifications of gums in foods. | CO2 | 8 |
| b. | Highlight the chemical name, food use, solubility, functions and legislation of synthetic antioxidants. | CO3 | 12 |
|  |  |  |  |  |
| 7. | a. | Annotate on dough conditioners with a special mention about specifications in bakery products. | CO3 | 15 |
| b. | Paraphrase the source, role and mechanism of action of natural colorants in foods. | CO3 | 5 |
| **(OR)** | | | | |
| 8. | a. | Articulate the functions of flavorants. | CO3 | 8 |
| b. | Classify the flavoring substances based on origin and nature of raw materials. | CO3 | 12 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Comment on starch based fat replacers. | CO3 | 10 |
| b. | Differentiate between enzymatic and non enzymatic browning. Add a note on browning inhibitors. | CO3 | 10 |