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



**End Semester Examination – Nov/Dec - 2017**

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| **Code :** | **16FP1001** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BASICS OF FOOD SCIENCE AND TECHNOLOGY** | **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. | Review the structure, functions and properties of any two disaccharides. | CO2 | 10 |
| b. | Elaborate the chemistry of frying with suitable examples. | CO2 | 10 |
| (OR) | | | | |
| 2. | a. | Classify minerals based on their requirement. Write about the role, sources and daily requirement of any two minerals. | CO1 | 10 |
| b. | What are enzymes? What are the uses of enzymes in food industry? | CO2 | 10 |
|  |  |  |  |  |
| 3. | a. | How is nutritive value of protein determined? Compare animal and plant protein quality. | CO3 | 10 |
|  | b. | Name the vitamins which come under the category of Vitamin B complex. Briefly indicate their importance in human nutrition. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | Discuss malnutrition and under-nutrition. Write a note on the basal metabolism to energy needs of the body. | CO3 | 10 |
|  | b. | Elaborate on the factors affecting nutrients during food processing. | CO2 | 10 |
|  |  |  |  |  |
| 5. | a. | Outline the process of beer manufacture with a neat flow diagram. | CO2 | 10 |
|  | b. | Explain the mechanism of gastro intestinal problems caused by endotoxin and exotoxin. | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | With the help of a neat flow diagram, Describe the process of manufacture of Sauerkraut. | CO3 | 10 |
|  | b. | Enlist the sources of food contamination? Name two microorganisms associated with food spoilage. | CO2 | 10 |
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| 7. | a. | Illustrate the processing of foods in retort pouch with neat flow diagram. | CO2 | 10 |
|  | b. | Describe the sterilization technique with special emphasis on ultrahigh temperature method. | CO3 | 10 |
| (OR) | | | | |
| 8. | a. | Describe the improved general method for thermal process evaluation. | CO2 | 10 |
|  | b. | What is refrigeration, ton of refrigeration and Explain the application of refrigeration in food industries? | CO2 | 10 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Describe the methods of freezing foods. Explain the criteria of selection of a method for particular food. | CO3 | 10 |
|  | b. | Explain the principle of hurdle technology as applied to foods. | CO2 | 10 |