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



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

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| **Code :** | **17FP2013** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FRUIT AND VEGETABLE PROCESSING 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. | Discuss on the different factors causing spoilage in vegetables and fruits. | CO1 | 12 |
| b. | Categorize the storage types of fruits and vegetables with suitable examples. | CO1 | 8 |
| **(OR)** | | | | |
| 2. | a. | Justify the need for pre-cooling of fruits and vegetables prior to processing and the various pre-cooling techniques. | CO3 | 10 |
| b. | Post harvest operations help in retaining the quality of the fruits and vegetables till consumption. Justify the statement with relevant field operations. | CO2 | 10 |
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| 3. | a. | List the top five basic hurdle technology to maximise lethality against micro-organisms in an beverage industry. | CO3 | 10 |
| b. | Describe the various types of blanching methods for vegetables. Mention the significance for each methods. | CO2 | 10 |
| **(OR)** | | | | |
| 4. | a. | Construct a canning process for carrot with a neat sketched flow chart. | CO2 | 7 |
| b. | Illustrate the production process of mixed fruit jam with a neat flow chart. | CO4 | 8 |
| c. | Explain briefly on aroma recovery equipment. | CO4 | 5 |
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| 5. | a. | Discuss on the extractor equipments for fruit juice processing. | CO4 | 15 |
| b. | Illustrate the processing and manufacturing of tomato ketchup with a neat flow chart. | CO2 | 5 |
| **(OR)** | | | | |
| 6. | a. | Summarize the minimal processing methods of fruits and vegetables. | CO3 | 5 |
| b. | Enumerate the methods of clarification of fruit juices with suitable examples. | CO4 | 15 |
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| 7. | a. | State the working of freeze drier. | CO5 | 14 |
| b. | Illustrate on cabinet tray drier. | CO4 | 6 |
| **(OR)** | | | | |
| 8. |  | State the working principle of spray drier with a neat sketch. | CO5 | 20 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Write a short note on the Aseptic heat exchangers for fruit processing. | CO6 | 15 |
| b. | Give a short note on aseptic packaged foods. | CO5 | 5 |