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

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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **14FP2026** | **Duration :** | **3hrs** |
| **Sub. Name :** | **PLANTATION PRODUCTS AND SPICES 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. | Describe the cup characteristics of *C. arabica* and *C. robusta* coffee. | CO1 | 10 |
| b. | Discuss the biochemical changes that takes place during roasting of coffee beans. | CO3 | 10 |
| (OR) | | | | |
| 2. | a. | Enumerate the dry processing method of green coffee with a flow diagram. | CO2 | 10 |
| b. | Illustrate the process of decaffeination of green coffee with comparison to water, organic sovents and carbon dioxide. | CO3 | 10 |
|  |  |  |  |  |
| 3. | a. | With a neat flow diagram, discuss the steps involved in instant tea production. | CO1 | 10 |
| b. | Enlist the biochemical changes that takes place during withering and fermentation of tea leaves. | CO3 | 10 |
| (OR) | | | | |
| 4. | a. | Evaluate the quality specifications of Indian tea with respect to Prevention of Food Adulteration Act 1954. | CO3 | 15 |
| b. | Compare and contrast the quality specifications of CTC and green tea. | CO1 | 5 |
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| 5. | a. | Explain the working principle of disc mill and ball mill in cocoa bean processing. | CO2 | 10 |
| b. | Discuss the production methods of cocoa butter and cocoa powder. | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | With a block diagram, describe the process and technology of chocolate production. | CO1 | 15 |
| b. | Describe the chemistry of quality defects of chocolate. | CO2 | 5 |
|  |  |  |  |  |
| 7. | a. | Describe the post harvest technology and quality specifications of black and white pepper. | CO3 | 10 |
| b. | Illustrate the methods and production of oleoresin from major spices. | CO2 | 10 |
| (OR) | | | | |
| 8. | a. | Explain in detail about post harvest processing of turmeric and its quality specification with respect to Indian standards. | CO3 | 10 |
| b. | Elaborate the processing steps involved in primary and secondary products of ginger. | CO1 | 10 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Enumerate the adulterants and possible contaminants on post harvest processing of coriander. | CO3 | 10 |
| b. | Categorize the quality specifications for cumin seeds, powder and volatile oil. | CO2 | 10 |