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## KERALA AGRICULTURAL UNIVERSITY B.Tech.(Food Technology) 2021 Admission V Semester Final Examination – January 2024

# ICT Applications in Food Industry (1+2)

### Answer the following

- 1. An example for data type in LabVIEW.
- 2. Service that provides server space to make a website accessible on the Internet?
- 3. MATLAB Computing involves which types of files?
- 4. MATLAB function to create a matrix of zeros

5. Software for geometry and mesh generation in Computational Fluid Dynamics?

6. MATLAB keyword to define a function

## Fill in the blanks

- 7. ..... is used to perform element-wise division of two matrices in MATLAB.
- 8. In Excel absolute cell reference is denoted by ...... Symbol.
- 9. ...... contains the controls and indicators in LabVIEW to create the front panel.
- 10. Predefined formulas in Excel is known as .....

### Write short notes on ANY FIVE of the following

- 1. Describe the purpose of the IF function in Excel.
- 2. How does automation contribute to online food process control?
- 3. Describe the role of MATLAB in data analysis for food production processes.
- 4. How do you create a script file in MATLAB?
- 5. What are the applications of CFD in food processing?
- 6. How can you implement mathematical scripts in LabVIEW?
- 7. How can you customize the appearance of a graph in LabVIEW?

### III Answer ANY FIVE of the following

- 1. Describe the purpose of a pie chart in data representation. Provide guidelines for creating an effective pie chart in Excel.
- 2. Explain the key steps involved in setting up a website.
- 3. What is meant by interactive plotting in MATLAB?
- 4. What are the different ways to debug a MATLAB code?
- 5. Explain the significance of the continuity equation in fluid dynamics. Provide an example of its application in the food and beverage industry.
- 6. How can you create a custom subVI in LabVIEW? Explain the benefits of using subVIs.
- 7. Explain the purpose of a Case Structure in LabVIEW. Provide an example where a Case Structure would be beneficial.

#### IV Write an essay on ANY ONE of the following

1. Discuss the role of the Analysis ToolPak in Excel for statistical data analysis. Provide a step-bystep solution to a regression analysis problem?

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2. Describe MATLAB environment and its key components.

Marks: 50 Time: 2 hours

(10x1=10)

(5x2=10)

(5x4=20)

(1x10=10)