

GURU JAMBHESWAR UNIVERSITY OF SCIENCE AND TECHNOLOGY, HISAR

Centre for distance and online education

Programme: Diploma in Food Quality Assurance

Nomenclature: Introduction to Food Analysis

Semester: 2nd

Code: IIFQA01

Total Marks: 30

Credits: 4+0+0

Important Instructions:

- 1) Attempt all Questions each assignment given below
- 2) Each assignment carries 15 marks
- 3) All questions are to be attempted in legible handwriting on plane white A-4 size paper and upload the scanned copy of the assignments on student's portal

Assignment -I

Q.1-Define sampling. Discuss different types along with their significance.

Q.2- Discuss different analytical methods for the determination of carbohydrates and proteins in food samples. Explain one method of each in detail.

Q.3- Explain different components of texture analyzer. Describe its working and purpose of penetrometer.

Assignment -II

Q.1- State the principle and application of rheological analysis of food.

Q.2- Define spectroscopy and explain its principle. Describe the working of a UV-visible spectrophotometer.

Q.3- Explain the basic principle, working, and applications of high- pressure liquid chromatography in food analysis.

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Programme: Diploma in Food Quality Assurance

Nomenclature: Food Adulteration and Testing

Semester: 2nd

Code: IIFQA02

Total Marks: 30

Credits: 4+0+0

Important Instructions:

- 1) Attempt all Questions each assignment given below
- 2) Each assignment carries 15 marks
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Assignment -I

- Q.1-Define food adulteration and classify food adulterants.
- Q.2- Discuss methods of detection of plant food adulterations.
- Q.3-Mention important animal food adulterations and their major detection methods.

Assignment -II

- Q.1-What do you mean by poisonous and foreign matter related to food. Mention their impact on human health.
- Q.2-What are various microbiological hazards and contaminants. Discuss food contamination with pathogenic bacteria, insects and fungi.
- Q.3- Discuss various packaging hazards in food and their impact on human health.

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Programme: Diploma in Food Quality Assurance

Nomenclature: Food Packaging and Labelling

Semester: 2nd

Course Code: IIFQA03

Total Marks: 30

Credits: 4+0+0

Important Instructions:

- 1) Attempt all Questions each assignment given below
- 2) Each assignment carries 15 marks
- 3) All questions are to be attempted in legible handwriting on plane white A-4 size paper and upload the scanned copy of the assignments on student's portal

Assignment –I

Q1 Discuss the functions and characteristics of different food packaging materials

Q2 Packaging requirement s of different foods:

- i) Dairy products
- ii) Frozen and microwavable foods

Q3 Describe the shelf life of packaged food stuffs

Assignment -II

Q1 Brief about recent packaging techniques to extend shelf life of foods: MAP and intelligent packaging

Q2 Elaborate the packaging machineries used in food packaging.

Q3 Importance of packaging standards and regulations in maintaining quality of foods.

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Programme: Diploma in Food Quality Assurance

Nomenclature: Food Toxicants, Contaminants and Allergens

Semester: 2nd

Code: IIFQA04

Total Marks: 30

Credits: 4+0+0

Important Instructions:

- 1) Attempt all Questions each assignment given below
- 2) Each assignment carries 15 marks
- 3) All questions are to be attempted in legible handwriting on plane white A-4 size paper and upload the scanned copy of the assignments on student's portal

Assignment- I

Q1. Define food toxicology. What is the basis of classification of food toxins? Explain with suitable example.

Q 2. Describe the toxins present in animal-based foods. What are the sources and concerns associated with these toxins?

Q 3. Define allergens. What are different types of allergens from plant and animal-based foods? Explain about any two in detail.

Assignment -II

Q1. What are genetically modified foods? What are toxicological concerns associated with genetically modified foods?

Q2. Explain the production of nitrosamines during food processing, health hazards and possible food substrates?

Q3. What are pesticide and fungicide residues present in foods? How these enters in food chain and their toxic effects on human health.

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Programme: Diploma in Food Quality Assurance

Nomenclature: HACCP in Food Industry

Semester: 2nd

Code: IIFQA05

Total Marks: 30

Credits: 4+0+0

Important Instructions:

- 1) Attempt all Questions each assignment given below
- 2) Each assignment carries 15 marks
- 3) All questions are to be attempted in legible handwriting on plane white A-4 size paper and upload the scanned copy of the assignments on student's portal

Assignment -I

Q.I Write short notes on the following:

- a) Ornament Policy
- b) Physical Hazard

Q.2 Why HACCP is important for food safety.

Q.3 Explain the different types of food safety hazard.

Assignment -II

Q.1 Write in brief about HACCP principles.

Q.2 Write down characteristics and the responsibilities of an auditor.

Q.3 Write down the CCP used in dairy industry.