# Diploma Course (MICROBIAL ANALYSIS AND FOOD SAFETY)
# (Semester II)
# MFS-204: Food Adulteration and Safety

**Max. Marks: 40** **Time allowed: 3 hrs.**

***Note:*** *Attempt five questions in all, including Question no. 1 which is compulsory and selecting one question from each Unit.*

**Q1. Each question carry equal marks (1)**

a) Write one example of intentional and incidental adulterants?

b) Define Processing Contaminants?

c) What are Natural and pollutant toxicants?

d) Define GMO. Give 3 Examples of GMO foods?

e) Write at least 2 examples of carcinogens formed during Food Processing?

f) Write major differences between Humoral and Cell mediated Immunity?

g) What is Anaphylaxis?

## UNIT-1

**Q2. I)** a) Define adulteration and explain in detail various types of adulterants (4)

b) What is the procedure for the Detection of starch in milk and milk products? (4)

**II)** Write a procedure for the detection of adulteration of the following:

a) Food Grains and its Products.(4)

b) Fruits and Vegetables (4)

## UNIT-II

**Q3. I)** How Acrylamide is formed during food processing? Explain the method for the detection of Acrylamide in the food products? (4, 4)

**II)** Write a short note on the formation and quantification of PAHs, Oxyhalides and haloacetic acid? (8)

## UNIT-III

**Q4. I)** a) What are the Potential toxicants formed during the food processing? (4)

b) Explain the various types/Classes of Food Contaminants which Pose A Carcinogenic Threat To Humans? (4)

**II**) How Genetically engineered foods are formed and what are the various safety concerns which should be considered before commercialising them? Discuss Potential toxicity of GM foods. (8)

## UNIT-IV

**Q5. I) Write a short note on:**

a) Type I and Type II Hypersensitivity? (4)

b) Type III and Type IV Hypersensitivity? (4)

**II)** What are Metabolic food disorders? Explain the Food Disorder caused due to Lactose Intolerance and Favism? (8)