


<b>Name:</b>			
<b>Enrolment No:</b>			
<p style="text-align: center;"><b>UPES</b> <b>End Semester Examination, May 2025</b></p> <p><b>Course: Quality Assurance and Certification</b> <b>Program: B.Tech Food Technology</b> <b>Course Code: HSCC4001</b> <b>Instructions: All Questions are compulsory</b></p> <p style="text-align: right;"><b>Semester: VIII</b> <b>Time : 03 hrs.</b> <b>Max. Marks: 100</b></p>			
<b>S. No.</b>	<p style="text-align: center;"><b>Section A</b> <b>Short answer questions/ MCQ/T&amp;F</b> <b>(20Qx1.5M= 30 Marks)</b></p>	<b>Marks</b>	<b>CO</b>
<b>Q 1</b>	Enlist the activities associated with quality management.	<b>1.5</b>	<b>CO2</b>
<b>Q 2</b>	Define F value.	<b>1.5</b>	<b>CO1</b>
<b>Q 3</b>	Which ISO is associated with quality assurance?	<b>1.5</b>	<b>CO3</b>
<b>Q 4</b>	Write the unit of specific density.	<b>1.5</b>	<b>CO1</b>
<b>Q 5</b>	..... is a scientific discipline describing handling, preparation, and storage of food in ways that prevent food borne illness. a) Food security b) Food safety c) Food handling d) None of the above	<b>1.5</b>	<b>CO2</b>
<b>Q 6</b>	The other name for ‘pre-requisite programs’ is a) Written programs b) Implementation c) HACCP d) Good Manufacturing Practices	<b>1.5</b>	<b>CO4</b>
<b>Q 7</b>	Which one of the following processes reduces contaminating bacterial load to human health safety level? a) Cleaning b) Disinfection c) Sterilization d) Sanitization	<b>1.5</b>	<b>CO2</b>
<b>Q 8</b>	Which compound is responsible for the odor of banana? a) Isoamyl acetate b) Menthol c) Actene-3-ol d) Benzaldehyde	<b>1.5</b>	<b>CO1</b>
<b>Q 9</b>	Sorption isotherm is the thermodynamic relationship between water activity and moisture content. a) True	<b>1.5</b>	<b>CO1</b>

	b) False		
<b>Q 10</b>	Food regulations in India are given by ..... a) FSSAI b) BIS c) FPO d) MPO	<b>1.5</b>	<b>CO4</b>
<b>Q 11</b>	Define flavor and its importance in quality control.	<b>1.5</b>	<b>CO1</b>
<b>Q 12</b>	Write about the use of Hunter color lab in the food industry.	<b>1.5</b>	<b>CO1</b>
<b>Q 13</b>	Botulism, a foodborne illness, is an example of a) Food intoxication b) Food infection c) Food allergy d) None of these	<b>1.5</b>	<b>CO5</b>
<b>Q 14</b>	Define hedonic scaling.	<b>1.5</b>	<b>CO1</b>
<b>Q 15</b>	Iodine value measures a) Degree of unsaturation b) Degree of saturation c) Amount of carbon present d) Number of iodine present	<b>1.5</b>	<b>CO2</b>
<b>Q 16</b>	Differentiate between flavor and aroma.	<b>1.5</b>	<b>CO2</b>
<b>Q 17</b>	Enlist different types of hazards.	<b>1.5</b>	<b>CO2</b>
<b>Q 18</b>	.....systematic and planned actions which are necessary to provide adequate confidence that a product or service will satisfy the given requirement for quality. a) Quality control b) Quality Assurance c) GHP d) GLP	<b>1.5</b>	<b>CO4</b>
<b>Q 19</b>	Which instrument is used for mineral analysis in food? a) HPLC b) GLC c) ICP-OES d) Rheometer	<b>1.5</b>	<b>CO5</b>
<b>Q 20</b>	Which of the following tests is the basis for checking pasteurization efficiency of milk? a) Phosphatase test b) Peroxide test c) Catalase test d) None of the above	<b>1.5</b>	<b>CO1</b>
<b>Section B</b> <b>(4Qx5M=20 Marks)</b>			
<b>Q 1</b>	Write a short overview of the ISO system.	<b>5</b>	<b>CO4</b>

<b>Q 2</b>	Explain the function of a spectrophotometer in color measurement.	<b>5</b>	<b>CO5</b>
<b>Q 3</b>	Define weight volume ratio. Explain the various physical properties of grains.	<b>5</b>	<b>CO1</b>
<b>Q 4</b>	Summarize the various factors affecting sensory measurements.	<b>5</b>	<b>CO2</b>
<b>Section C</b> <b>(2Qx15M=30 Marks)</b>			
<b>Q 1</b>	a) Explain different types of taste and how temperature affects the taste. (5 marks) b) Describe the quality management and quality assurance. (5 marks) c) Write short note on the odour. (5 marks)	<b>15</b>	<b>CO3</b>
<b>Q 2</b>	a) Discuss the various principles of HACCP along with example. (10 marks) b) Describe the importance of viscosity and consistency in food quality. (5 marks)	<b>15</b>	<b>CO4</b>
<b>Section D</b> <b>(2Qx10M=20 Marks)</b>			
<b>Q 1</b>	Why is there a requirement of sampling? Explain the descriptive sensory analysis and its applications in the food industry.	<b>10</b>	<b>CO2</b>
<b>Q 2</b>	a) Describe the good manufacturing practices and good agricultural practices. (5 marks) b) Discuss about the various factors influencing food quality. (5 marks)	<b>10</b>	<b>CO5</b>