Scheme of Valuation/Answer Key

(Scheme of evaluation (marks in brackets) and answers of problems/key)

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

THIRD SEMESTER B.TECH DEGREE EXAMINATION, MAY2019

Course Code: FT203

Course Name: FOOD CHEMISTRY

Max. Marks: 100		Duration: 3 Hours

PART A

		Answer any threefullquestions, each carries 10 marks.	Marks
1	a)	Give the classification of food groups. Definition: 1 mark; Classification: 4 marks	(5)
	b)	Illustrate the methods to determine water quality. Methods: 3 marks; Description: 2 marks	(5)
2	a)	Elucidate any four properties of water. Each property: 1 mark each; Total 4 marks	(4)
	b)	Give a detailed account on water activity and its importance. Definition: 2 marks; Equation: 1 mark; Importance: 3 marks	(6)
3	a)	Classify carbohydrates with examples. Definition: 1 mark; Classification: 3 marks; Description: 2 marks	(6)
	b)	Differentiate optical rotation and muta rotation. Minimum 4 points: 1 mark each; Total 4 marks	(4)
4	a)	Define browning and give its types. Definition: 1 mark; Types: 2 marks; Description: 1 mark	(4)
	b)	Give detailed account on seaweeds, gums and pectin. Definition: 3 marks; Description: 3 marks	(6)

PART B

Answer any threefull questions, each carries 10 marks.

5	a)	Define amino acids and classify based on structure. Definition: 2 mark; Classification: 4 marks	(6)
	b)	Differentiate cereal proteins and texturized proteins with examples. Minimum 4 points: 1 mark each; Total 4 marks	(4)
6	a)	Give the physical and chemical properties of proteins. Definition of proteins: 1 mark; Each properties: 2.5 marks each; Total: 6 marks	(6)
	b)	Describe any four important protein sources. Minimum 4 points: 1 mark each; Total 4 marks	(4)
7	a)	List out any four properties of fats and oils. Minimum 4 points: 1 mark each; Total 4 marks	(4)
	b)	Define rancidity and its types. Definition: 1 mark; Types: 2 marks; Description: 3 marks	(6)
8	a)	Differentiate emulsification and polymerization. Minimum 4 points: 1 mark each; Total 4 marks	(4)
	b)	Give a detailed account on functional role and uses of fats in foods. Role: 4 marks; Uses: 2 marks	(6)

PART C

Answer any fourfull questions, each carries 10 marks.

9	a)	Define vitamins and classify it. Definition: 2 mark; Classification: 4 marks	(6)
	b)	What are food additives and explain its role. Definition: 1 marks; Description: 3 marks	(4)
10	a)	Differentiate sweeteners and stabilizers. Minimum 4 points: 1 mark each; Total 4 marks	(4)
	b)	Give a detailed account on fat soluble vitamins. Definition: 2 mark; Classification: 4 marks	(6)
11	a)	Illustrate food colours and flavors with examples. Definition: 2 marks; Description: 3 marks	(5)
	b)	Describe the role of minerals in diet. Definition: 1 marks; Description: 4 marks	(5)
12	a)	Illustrate a balanced diet. Definition: 2 marks; Description: 4 marks	(6)
	b)	Distinguish glycemic index and carbohydrate factor. Minimum 4 points: 1 mark each; Total 4 marks	(4)
13	a)	Describe the biological value of proteins in nutrition. Definition: 2 marks; Description: 4 marks	(6)
	b)	Exemplify nitrogen balance and its types. Definition: 1 mark; Types: 2 marks; Description: 1 mark	(4)
14	a)	Define and explain protein malnutrition and deficiency diseases. Definition: 2 marks; Description: 4 marks	(6)
	b)	Describe the vitamins and mineral requirements. Definition: 2 marks; Description: 2 marks	(4)
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