

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
THIRD SEMESTER B.TECH DEGREE EXAMINATION(S), MAY 2019

Course Code: FT203

Course Name: FOOD CHEMISTRY

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any threefull questions, each carries 10 marks.

Marks

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| 1 | a) Give the classification of food groups. | (5) |
| | b) Illustrate the methods to determine water quality. | (5) |
| 2 | a) Elucidate any four properties of water. | (4) |
| | b) Give a detailed account on water activity and its importance. | (6) |
| 3 | a) Classify carbohydrates with examples. | (6) |
| | b) Differentiate optical rotation and muta rotation. | (4) |
| 4 | a) Define browning and give its types. | (4) |
| | b) Give detailed account on seaweeds, gums and pectin. | (6) |

PART B

Answer any threefull questions, each carries 10 marks.

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| 5 | a) Define amino acids and classify based on structure. | (6) |
| | b) Differentiate cereal proteins and texturized proteins with examples. | (4) |
| 6 | a) Give the physical and chemical properties of proteins. | (6) |
| | b) Describe any four important protein sources. | (4) |
| 7 | a) List out any four properties of fats and oils. | (4) |
| | b) Define rancidity and its types. | (6) |
| 8 | a) Differentiate emulsification and polymerization. | (4) |
| | b) Give a detailed account on functional role and uses of fats in foods. | (6) |

PART C

Answer any fourfull questions, each carries 10 marks.

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| 9 | a) Define vitamins and classify it | (6) |
| | b) What are food additives and explain its role. | (4) |
| 10 | a) Differentiate sweeteners and stabilizers. | (4) |
| | b) Give a detailed account on fat soluble vitamins. | (6) |
| 11 | a) Illustrate food colours and flavors with examples. | (5) |
| | b) Describe the role of minerals in diet. | (5) |
| 12 | a) Illustrate a balanced diet. | (6) |
| | b) Distinguish glycemic index and carbohydrate factor. | (4) |

- 13 a) Describe the biological value of proteins in nutrition. (6)
b) Exemplify nitrogen balance and its types. (4)
- 14 a) Define and explain protein malnutrition and deficiency diseases. (6)
b) Describe the vitamins and mineral requirements. (4)
