Reg No.:_____ Name:_____

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

THIRD SEMESTER B.TECH DEGREE EXAMINATION(R&S), DECEMBER 2019

**Course Code: FT207**

**Course Name: INTRODUCTORY FOOD TECHNOLOGY**

Max. Marks: 100 Duration: 3 Hours

**PART A**

***Answer any three full questions, each carries 10 marks.*** Marks

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|---|---|---|---|
| 1 | a) | How will you determine the quality of a protein? | (6 ) |
| | b) | Describe the functions of food. | ( 4) |
| 2 | a) | Classify protein and explain the role of proteins in the biological system | (8) |
| | b) | Consuming milk favours the bone development. Validate the statement | (2) |
| 3 | a) | What is food spoilage? What are the various symptoms of food spoilage? | (7) |
| | b) | Lactic acid bacteria is used in the production of yoghurt but it is also a spoilage microorganism. Explain the reason behind it? | (3) |
| 4 | a) | Describe the effect of temperature, water activity and pH on the growth of microorganism | (7) |
| | b) | Differentiate between primary, secondary and tertiary processing of food | (3) |

**PART B**

***Answer any three full questions, each carries 10 marks.***

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|---|---|---|---|
| 5 | | Explain the status, challenges, value chain, interventions and growth drives of fruits and vegetable sector in India | (10 ) |
| 6 | a) | Elucidate Mega food park scheme and MPEDA | (6) |
| | b) | What is the role of food technologist in the society | (4) |
| 7 | | Derive and describe the pressure, force, energy, viscosity and work in detail. | (10) |
| 8 | a) | The liquid pressure in a tank is given by the equation $Z= (P/\rho g)$ where z is the depth, P is the pressure, ρ id the density and g is the acceleration due to gravity. Show that the equation is dimensionally consistent. | (5) |
| | b) | Explain the various system of measurements in units and dimension | (3) |
| | c) | With examples state basic and derived units? | (2) |

**PART C**

***Answer any four full questions, each carries 10 marks.***

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|---|---|---|---|
| 9 | | What is moisture content? Explain the various methods of determination of moisture content | ( 10) |
| 10 | a) | Describe the various forms of water present in food material | (5) |
| | b) | What is the difference between moisture sorption isotherm and moisture desorption isotherm? Explain the reason behind that. | (5) |
| 11 | a) | What is water activity? | (3) |
| | b) | Describe the methods by which water activity can be controlled in a food material? | (7) |
| 12 | | Write a short note on food packaging and its importance in food industry. | (10) |
| 13 | | Explain the following food safety regulations<br>(1) ISO 22000 (2) BIS (3) AGMARK | (10) |
| 14 | | Describe the various waste management techniques followed in food industries | (10) |

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