

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fifth Semester B.Tech Degree Examination (Regular and Supplementary), December 2020

Course Code: FT307**Course Name: FOOD ANALYSIS**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer any two full questions, each carries 15 marks.*

Marks

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|---|----|--|------|
| 1 | a) | Write an essay on Codex Alimentarius Commission. | (10) |
| | b) | What are the different types of food analysis? | (5) |
| 2 | a) | Write short notes on NABL and EIC. | (8) |
| | b) | Explain different types of Probability and Non-probability sampling. | (7) |
| 3 | a) | Explain the direct methods for moisture estimation. | (8) |
| | b) | Explain the Kjeldhal method of protein analysis. | (7) |

PART B*Answer any two full questions, each carries 15 marks.*

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| 4 | a) | Derive the equation for Beer-Lambert's law and write its limitations. | (10) |
| | b) | Explain the components of Column chromatography. | (5) |
| 5 | a) | Explain the principle, instrumentation and working of AAS with a neat diagram. | (12) |
| | b) | Define Supercritical fluids with examples. | (3) |
| 6 | a) | Write an essay on Gas Chromatography. | (8) |
| | b) | Write the procedure of Thin layer chromatography. | (7) |

PART C*Answer any two full questions, each carries 20 marks.*

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| 7 | a) | Explain the working principle of Capillary electrophoresis with a neat sketch. | (10) |
| | b) | Explain the basic principle of ELISA and RIA. | (10) |
| 8 | a) | Write notes on principle and procedure of Rocket electrophoresis. | (5) |
| | b) | Give notes on the applications of immunoassay techniques. | (5) |
| | c) | Explain the various methods to analyse extraneous matter in foods. | (10) |
| 9 | a) | Write an essay on Thermal analysis in foods. | (10) |
| | b) | What are the applications of Ion sensitive electrodes and biosensors in food analysis? | (10) |