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Question Paper Code:99D72

B.E./B.Tech. DEGREE EXAMINATION, NOV 2022

Open Elective

Civil Engineering

19UBT972- Quality Assurance and Control in Food Industry

(Common to CSE,EEE, ECE, MECH, IT ,Agri, BME, CSBS & CSD Engineering branches)

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART A - (10x 2 = 20 Marks)

1. I am in a plan to develop a food product so being a customer list some quality assessing parameters that a customer would have for developing good food product CO2- App
2. List some applications of Microbes in food industry CO1- U
3. What is sterilization? CO1- U
4. Define D value of thermal sterilization CO1- U
5. Define packaging process CO1- U
6. Write the importance of labeling CO1- U
7. Define TQM CO1- U
8. What is the purpose of writing SOP? CO1- U
9. Daniel, a food safety officer inspects a tea shop. Now list out what are instructions he should give to the workers and owner of the shop. CO2- App
10. Explain how AGMARK certification is varied from FSSAI certification CO2- App

PART – B (5 x 16= 80Marks)

11. (a) Explain in detail various unit operations in food processing to improve the shelf life of a product. CO1- U (16)

Or

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|-----|-----|--|--------|------|
| | (b) | Write various spectroscopy techniques and its corresponding electromagnetic radiation used during the analysis and explain in detail the spectroscopy technique which uses visible region as source of analysis. | CO1- U | (16) |
| 12. | (a) | Write a detailed note on ways to process and preserve the dairy food products | CO1- U | (16) |
| | | Or | | |
| | (b) | List out the thermal based methods used for food processing and explain it in detail | CO1- U | (16) |
| 13. | (a) | Explain in detail various ways of packaging methods and the research methods to develop it | CO1- U | (16) |
| | | Or | | |
| | (b) | Write about the food safety issues in consuming ready to eat foods in detail. | CO1- U | (16) |
| 14. | (a) | Draft good manufacturing practices protocols for any food production. | CO1- U | (16) |
| | | Or | | |
| | (b) | In the food industry, make a quality analysis of various departments and develop a TQM Protocol to enhance the quality. | CO1- U | (16) |
| 15. | (a) | Discuss the processing and preservation of burger chicken patties and explain the safety regulations to be followed. | CO1- U | (16) |
| | | Or | | |
| | (b) | Write a detailed note on food safety regulations and quality attributes of plant based food products. | CO1- U | (16) |