

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 94805**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

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

- (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)

