

Reg.No.:



VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN

[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]

Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

**Question Paper Code: 9005**

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – MAY / JUNE 2024

Eighth Semester

Biotechnology

U19BTE25 – TOTAL QUALITY MANAGEMENT

(Regulation 2019)

Time: Three Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

**PART – A**

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	Define Quality.	2	K1	CO1
2.	Show the Purpose of Quality Council.	2	K1	CO1
3.	Infer Customer Perception of Quality.	2	K2	CO2
4.	Interpret the role of Supplier Partnering in TQM.	2	K2	CO2
5.	Summarize the usage of Check Sheet as a Quality Tool.	2	K2	CO3
6.	Outline the role of White Belt in Six Sigma Certification.	2	K2	CO3
7.	Recall the team Benchmarking.	2	K1	CO4
8.	Show an example of Poka-Yoke.	2	K2	CO4
9.	List the basis of ISO 9000 Standards.	2	K1	CO5
10.	Classify the nature of Quality Auditing.	2	K2	CO5

**PART – B**

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Illustrate the Deming's 14 Principles becoming Symbol of Quality.	13	K2	CO1

(OR)

	b)	Explain the ways of measuring and implementing the Cost of Quality. Classify the types of Quality Costs.	13	K2	CO1
12.	a)	Summarize the Components of Juran's Trilogy and examine its application towards Manufacturing Industry.	13	K2	CO2
		(OR)			
	b)	Illustrate the process of Kaizen and explain the Key Elements and Core Principles of Kaizen.	13	K2	CO2
13.	a)	Critically analyze the Seven New Management Tools with their Applications.	13	K4	CO3
		(OR)			
	b)	Examine Control Charts for Variables and Attributes with examples.	13	K4	CO3
14.	a)	Elaborate the Steps to build a House of Quality for a Branded Smartphone with a neat diagram.	13	K6	CO4
		(OR)			
	b)	Estimate Taguchi's Quality Loss Function with example and discuss it as a Cost-Effective Approach to Quality Improvement in Manufacturing.	13	K6	CO4
15.	a)	Carefully identify the requirements of ISO 9000:2008 Quality Management Systems and interview its Implementation in Apparel Stores in India.	13	K3	CO5
		(OR)			
	b)	Organize the Standards, Mandatory Documents required and Costs associated with the Implementation of ISO 14000	13	K3	CO5

### PART – C

(1 x 15 = 15 Marks)

Q.No.	Questions	Marks	KL	CO
16. a)	The concept of Quality Circles which originated in the United States and actually proliferated in Japan is of recent origin in India. In India, by now several companies have implemented QC programs. Companies where the QC programs have been working successfully include BHEL, Kirloskar Oil Engines, Mahindra & Mahindra, Bajaj Auto etc. Though QC concept has many positive points, it has failed miserably in many organizations due to certain problems and pitfalls. M/s Global Manufacturers Ltd was one such company. Following are some important problems of M/s Global Manufacturers Ltd efforts and their successive failure in the implementation of Quality Circles. Both employees and managers had a negative attitude	15	K4	CO3

toward QC and often resisted its implementation. Managers felt that QC dilutes their authority and importance in the organization. Also, the employees were characterized by their low level of education and also lack of leadership qualities. Lack of management commitment toward QC was demonstrated by not permitting the members to hold QC meetings during the working hours. The members of the QC felt disheartened when their suggestions were not accepted and implemented by the management without giving convincing reasons for not doing so.

Questions:

- i. Analyze the major problems that you can identify which have posed as a major hindrance in the successful implementation of Quality Circles at M/s Global Manufacturers Ltd.
- ii. Examine on how the negative attitude of employees towards QC can be dispelled.
- iii. Inspect the steps / measures you propose for the employees of M/s Global Manufacturers Ltd embrace QC and as a result, further enthuse, the members of QC to improve the quality of their goods and services.

(OR)

- b) Promax Ltd. is into manufacturing automobile components. Mr. Prakash, the Chairman of the company wants to bring in new ideas to improve the quality of the products. He has consulted a Consultant. The consultant advises him to implement good suggestion system, quality circles and FMEA Tools. If you were that consultant analyze how would you go about in implementing these things and why.

15 K4 CO4

