

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: 6002**

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

Eighth Semester

Information Technology

U19ITE30 - 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

**PART – A**

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	What do you mean by customer perception of quality?	2	K1	CO1
2.	Classify the characteristics of quality.	2	K2	CO1
3.	What is meant by Signal to Noise ratio?	2	K1	CO2
4.	Define Quality Circle.	2	K1	CO2
5.	Briefly explain “Total Productive Maintenance”.	2	K2	CO3
6.	List the contribution of Statistical Process Control to Quality.	2	K1	CO3
7.	List few metrics to determine failure rate.	2	K1	CO4
8.	Define Quality Function Deployment.	2	K1	CO4
9.	Outline a reengineering process for an application of your choice.	2	K2	CO5
10.	What is quality audit?	2	K1	CO5

**PART – B**

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Examine the term Service Quality, its characteristics and Expectations for a manufacturing sector.	13	K4	CO1

(OR)

	b)	How will you improve customer focus in quality for Indian industries? Analyze the strategies involved in customer focus.	13	K4	CO1
12.	a)	Do you think Juran Crosby's preaching's are relevant today in the present context at India? Justify. (OR)	13	K5	CO2
	b)	Evaluate in detail about the Japanese 5S principles, emphasizing in Lean Manufacturing scenario.	13	K5	CO2
13.	a)	What is the difference between SPC and process capability? Also, assess in detail construction of control charts for a specific application of your choice. (OR)	13	K5	CO3
	b)	Interpret the reliability concepts in SPC with the explanation of product life characteristics curve.	13	K5	CO3
14.	a)	i. Develop house of quality for designing a mobile phone. ii. Discuss the role of FMEA in TQM. Also, describe the scales used in FMEA. (OR)	6 7	K6	CO4
	b)	Construct in detail about the seven tools of Quality management.	13	K6	CO4
15.	a)	Inspect the certification process of ISO 9000 and the guidelines of performance expectations during quality audit. (OR)	13	K4	CO5
	b)	i. Examine the step by step process used for implementing BPR in the manufacturing organizations. ii. Analyze the leadership style which is most appropriate in a total quality Level 5 Evaluating setting and why?	6 7	K4	CO5

### PART – C

(1 x 15 = 15 Marks)

Q.No.	Questions	Marks	KL	CO
15. 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	15	K6	CO2

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 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.

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

(OR)

- b) Discuss Six Sigma approaches in the context of Supply chain Management system by drafting a comprehensive framework on the application of the method in different entities of the SCM.

15 . K6 CO3

