GE2022 TOTAL QUALITY MANAGEMENT L T P C

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1. INTRODUCTION 9

Introduction - Need for quality - Evolution of quality - Definition of quality - Dimensions of manufacturing and service quality - Basic concepts of TQM - Definition of TQM – TQM Framework - Contributions of Deming, Juran and Crosby – Barriers to TQM.

2. TQM PRINCIPLES 9

Leadership – Strategic quality planning, Quality statements - Customer focus – Customer orientation, Customer satisfaction, Customer complaints, Customer retention -Employee involvement – Motivation, Empowerment, Team and Teamwork, Recognition and Reward, Performance appraisal - Continuous process improvement – PDSA cycle, 5s, Kaizen - Supplier partnership – Partnering, Supplier selection, Supplier Rating.

3. TQM TOOLS & TECHNIQUES I 9

The seven traditional tools of quality – New management tools – Six-sigma: Concepts, methodology, applications to manufacturing, service sector including IT – Bench marking – Reason to bench mark, Bench marking process – FMEA – Stages, Types.

4. TQM TOOLS & TECHNIQUES II 9

Quality circles – Quality Function Deployment (QFD) – Taguchi quality loss function – TPM – Concepts, improvement needs – Cost of Quality – Performance measures.

5. QUALITY SYSTEMS 9

Need for ISO 9000- ISO 9000-2000 Quality System – Elements, Documentation, Quality auditing- QS 9000 – ISO 14000 – Concepts, Requirements and Benefits – Case studies of TQM implementation in manufacturing and service sectors including IT.

TOTAL: 45 PERIODS

TEXT BOOK

1. Dale H.Besterfiled, et at., “Total Quality Management”, Pearson Education Asia, Third Edition, Indian Reprint (2006).

REFERENCES

1. James R. Evans and William M. Lindsay, “The Management and Control of Quality”, (6th Edition), South-Western (Thomson Learning), 2005.
2. Oakland, J.S. “TQM – Text with Cases”, Butterworth – Heinemann Ltd., Oxford, Third Edition (2003).
3. Suganthi,L and Anand Samuel, “Total Quality Management”, Prentice Hall (India) Pvt. Ltd. (2006)
4. Janakiraman,B and Gopal, R.K, “Total Quality Management – Text and Cases”, Prentice Hall (India) Pvt. Ltd. (2006)

SUBJECT DESCRIPTION AND OBJECTIVES

DESCRIPTION

This subject will provide the student with the underlying principles and techniques of Total Quality Management (TQM) with emphasis on their application to technical organizations. Students will develop a working knowledge of the best practices in Quality and Process Management. Students will learn to view quality from a variety of functional perspectives and in the process, gain a better understanding of the problems associated with improving quality, also quality tools utilized in service and international/environment. Demonstrate how to design quality into product and services, describe the importance of developing a strategic plan for Total Quality Management and discuss the importance of "benchmarking", as a means of identifying the choice of markets

AIM

The overall aim is for students to develop an understanding of total quality management principles, frameworks, tools and techniques for effective real life applications in both manufacturing and services.

This subject aims to impart knowledge on the quality management process and key quality management activities. Specifically it aims to: Compare and contrast the various tools used in quality management, comprehend the concepts of customer's value, discuss the emerging tendencies toward global competitiveness, understand different perspectives on quality, comprehend six-sigma management and its tools.

OBJECTIVES

The main objective of this subject is to

1. Develop an understanding on quality management philosophies and frameworks
2. Develop in-depth knowledge on various tools and techniques of quality management
3. Learn the applications of quality tools and techniques in both manufacturing and service industry
4. Develop analytical skills for investigating and analysing quality management issues in the industry and suggest implement able solutions to those.

GE2022 TOTAL QUALITY MANAGEMENT - MICRO LESSON PLAN

Week	Hrs	Lecture Topic	Book
I		**UNIT- 1. INTRODUCTION**	
	1	Introduction - Need for quality, Evolution of quality	T1
	2	Definition of quality, Dimensions of manufacturing and service quality	T1
	3,4,5	Basic concepts of TQM, Definition of TQM, TQM Framework	T1
II	6,7	Contributions of Deming	T1
	8	Juran and Crosby	T1
	9	Barriers to TQM (AV)	T1
III		**UNIT II TQM PRINCIPLES**	
	10	Leadership – Strategic quality planning, Quality statements	T1
	11	Customer focus, Customer orientation, Customer satisfaction. (AV)	T1
	12, 13	Customer Complaints, Customer Retention, Employee involvement.	T1
IV	14, 15	Motivation, Empowerment, Team and Teamwork, Recognition and Reward.	T1
	16	Performance appraisal, Continuous process improvement, PDSA cycle, 5s.	T1
	17	Kaizen - Supplier partnership, Partnering. (AV)	T1
	18	Supplier selection, Supplier Rating.	T1
V		**UNIT III TQM TOOLS & TECHNIQUES I**	
	19	The seven traditional tools of quality	T1
	20	New management tools	T1
	21	Six-sigma: Concepts ,Methodology	T1
	22	Applications to manufacturing(AV)	T1
VI	23	Service sector including IT	T1
	24	Bench marking	T1
	25	Reason to bench mark	T1
	26	Bench marking process	T1
VII	27	FMEA – Stages, Types	T1
		UNIT IV TQM TOOLS & TECHNIQUES II	
	28	Quality circles	T1
	29	Quality Function Deployment (QFD) (AV)	T1
	30	Quality Function Deployment (QFD) (AV)	T1
VIII	31	Taguchi quality loss function	T1
	32	TPM – Concepts	T1
	33	TPM – Concepts	T1
	34	Improvement needs	T1
IX	35	Cost of Quality	T1
	36	Performance measures	T1
		UNIT V QUALITY SYSTEMS	
	37	Need for ISO 9000, ISO 9000-2000 Quality System.	T1
	38, 39	Elements, Documentation. (AV).	T1
	40	Quality auditing.	T1
X	41, 42	QS 9000 – ISO 14000 – Concepts	T1
	43	Requirements and Benefits	T1
	44	Case studies of TQM implementation in manufacturing sectors	T1
	45	TQM implementation in service sectors including IT.	T1

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