

1115  
Master of Entrepreneurship and Family Business  
Third Semester  
FB-306: Total Quality Management

Max. Marks: 80

Time allowed: 3 Hours

**NOTE:** Attempt five questions in all, selecting atleast two questions from each unit.

x-x-x

UNIT I		
I	a)	Define TQM, based upon its components. What are the steps involved in complete planning of a process, towards the end objective of customer satisfaction, in the environment of TQM ? 10
	b)	As a student of TQM list how does a student implement TQM learning to one's advantage in immediate and distant future. 6
II	a)	Evaluate without bias the cane and carrot model of people governance versus the responsibility and authority model of self governance. 10
	b)	Why is training of People given a priority in implementing TQM? 6
III	a)	Write a note each on Ishikawa diagram and Just in time 8
	b)	Evaluate Just in time in terms of cause and effects w.r.t delay in time in serving of food in a restaurant? 8
IV	a)	What are the advantages of a Control Chart towards controlling processes? 4
	b)	Five samples of drop-forged steel handles, with four observations in each sample, have been taken. The weight of each handle in the samples is given below (in ounces). Use the sample data to construct an X-chart and an R-chart to monitor the future process. 12

Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
10.2	10.3	9.7	9.9	9.8
9.9	9.8	9.9	10.3	10.2
9.8	9.9	9.9	10.1	10.3
10.1	10.4	10.1	10.5	9.7

-- Use X-chart and R-chart

- Calculate averages and ranges of new samples
- Plot on the X-chart and R-chart, respectively

Further five more samples of the handles are taken in second shift

Sample 6	Sample 7	Sample 8	Sample 9	Sample 10
10.4	10.5	9.9	10.3	9.9
9.8	9.9	9.9	10.4	10.4
9.9	9.9	9.9	10.6	10.5
10.3	10.5	10.3	10.5	9.9

Is the process still in control (Has the process changed, demanding analysis)? Given:

P.T.O.



Sample Size = m	A <sub>2</sub>	A <sub>3</sub>	d <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>
2	1.880	2.659	1.128	0	3.267
3	1.023	1.954	1.693	0	2.574
4	0.729	1.628	2.059	0	2.282
5	0.577	1.427	2.326	0	2.114
6	0.483	1.287	2.534	0	2.004
7	0.419	1.182	2.704	0.076	1.924
8	0.373	1.099	2.847	0.136	1.864
9	0.337	1.032	2.970	0.184	1.816
10	0.308	0.975	3.078	0.223	1.777
11	0.285	0.927	3.173	0.256	1.744

V	Write short notes on: (any Four)		16
	a) Continuous Improvement, its effective implementation		(4x4)
	b) Barriers to TQM		
	c) Competitive Benchmarking, as a tool for Quality improvement		
	d) Brainstorming		
	e) TEAMS		
UNIT II			
VI	a)	Define Business Process Reengineering. To implement BPR what Change must be incorporated into People / organization?	10
	b)	Compare the paradigm of Process certification Vs Product certification	6
VII	a)	Define excellence. How does TQM provide a roadmap for excellence in a marketing function? Explain w.r.t the factors for excellence.	10
	b)	Write an account on 7- W and is/is- not as an integrated tool for cause identification.	6
		Write a short notes on i) Quality Circle ii) Quality Assurance iii) Reliability of Quality Characteristics iv) Leader versus Manager.	16 (4x4)
VIII	a)	Differentiate between Quality Circle and Quality council.	8
	b)	Underline the objectives, duties, and structure of Quality department	8
IX	a)	Discussing the success story of Mumbai Dabbawala, (or any other success case).	8
		Evaluate in above case as to what made Six Sigma (or TQM) succeed.	8
IX	a)	Define and explain benefits of quality /TQM in after sales service. Does it lead to prove "Quality is free" or it pays back manifolds?	10
	b)	Compare Six Sigma and TQM	6
X	a)	"You must be the Change [yourself, the change] you want to see in the world." Explore this statement in light of improving culture of people in your organization/ family.	10
	b)	Compare Statistical Process Control Versus Statistical Product (Quality) Control.	6