GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-VI Examination-Nov/Dec-2011

Subject code: 160206   **Date: 02/12/2011**
Subject Name: Total Quality Management
Time: 10.30 am -1.00 pm   **Total marks: 70**
Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	1. Explain the important drivers of quality in detail.	**05**
		2. Explain benefits of implementing Total Quality Management in an Organisation.	**02**
	(b)	Explain in details each of the stages of "Evolution of Total Quality Management".	**07**
Q.2	**(a)**	List important human related factors to be considered in preparing for TQM and the stages of in TQM Implementation.	**07**
	(b)	i. Describe the Effect of planning in Industrial scene and effect of planning on time with the help of Deming Cycle OR Deming wheel.	**05**
		ii. What is SWOT Analysis and why is it required.	**02**

OR

	(b)	To inculcate TQM culture which factors should be ensured by Management.	**07**
Q.3	**(a)**	i. Explain Customer satisfaction model.	**03**
		ii. Explain four different types of Customers.	**04**
	(b)	Explain 9 Myths about Leadership.	**07**

OR

Q.3	**(a)**	i. Describe the wall of resistances to change.	**03**
		ii. Describe Steps for effective Controlling and Commanding.	**04**
	(b)	Explain focus of Team and Difference between a Group & Team.	**07**
Q.4	**(a)**	i. Explain the 'Bath tub curve' in brief.	**03**
		ii. Explain the concept of 6σ in brief and it's importance.	**04**
	(b)	Describe Vision and Mission statements of an organization; explain details of Objectives and action plans to achieve the targeted Goal. Prepare Vision and Mission statements for a company which is venturing into manufacturing of low cost three wheelers for urban transport.	**07**

OR

Q.4	**(a)**	i. Explain the procedure involved in ISO 9000 Certification.	**04**
		ii. What is the reliability of a component for an operating period of 200 hours, having a failure rate of 0.4×10^{-5} failures/hour. If 10,000 such items are tested, how many items will fail in 200 hours.	**03**
	(b)	Explain the Principle of "PARETO ANLYSIS" and Draw a Pareto diagram with the help of following data. (Take suitable scale).	**07**

T*	X	Y	Z	A	B	C	Q	R	S	T	U	V
F*	11	165	12	13	18	8	95	21	40	5	16	3

T* = Type of complaint
F* = Frequency of occurrence

Q.5 **(a)** i. What is the significance of Ishikawa diagram? Draw the Ishikawa diagram for fault diagnosis of 'customer complaint of low fuel average in heavy commercial vehicles'. **04**

ii. Compare the reliabilities of systems which have components connected in series and in parallel. **03**

(b) Explain the concept of '5S' for implementation in Automobile dealership workshop. **07**

OR

Q.5 **(a)** Explain how communication and transactional analysis helps in development of a Team. **07**

(b) i. Define the following terms: **05**
   a) Reliability
   b) Failure density
   c) MTTF
   d) MTBF
   e) Failure rate

ii. Explain what Quality Grid is. **02**

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