



12. (a) Explain Deming's PDCA cycle with appropriate diagram.

Or

(b) Define quality. Explain Juran's ten steps of continuous quality improvement.

13. (a) Describe the principles of six sigma. Explain its applications in small organisations.

Or

(b) An industrial product was subjected to inspection with a batch size of 500 for ten consecutive days. The number of defective pieces found are 33, 42, 44, 56, 60, 43, 55, 42, 28 and 70. Draw a p-chart and discuss.

14. (a) Discuss the objectives, process, outcome and benefits of FMEA.

Or

(b) Write notes on :

- (i) QFD process
- (ii) Bench marking process.

15. (a) Discuss the role of leadership in total quality management.

Or

(b) Describe the steps involved in Quality Audit.

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Reg. No. :

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**Question Paper Code : 22015**

M.B.A. DEGREE EXAMINATION, FEBRUARY/MARCH 2015.

Second Semester

DBA 1656 — QUALITY MANAGEMENT

(Regulation 2007/2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is customer retention?
2. Define cost of quality.
3. Explain 5's.
4. What is quality circle?
5. Write the significance of Statistical Process Control (SPC).
6. Define six sigma concept.
7. What are the benefits of Quality Function Deployment (QFD)?
8. What is House Of Quality (HOQ)?
9. How quality audit help quality management system?
10. What is total productive maintenance?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss the need for vision, mission and quality policy in Total Quality Management (TQM).

Or

- (b) Describe the dimensions of product involved in service quality.

12. (a) Enumerate in detail about feigenbaum and juran contribution to quality.
- Or
- (b) Discuss about taguchi and shingeo contribution to quality.
13. (a) Explain the principles, applications and process of Business Process Reengineering (BPR).
- Or
- (b) Discuss the product life characteristics curve in Total Productive Maintenance (TPM).
14. (a) Discuss the function of Failure Mode Effect Analysis (FMEA).
- Or
- (b) Differentiate between seven old statistical tools and seven new management tools.
15. (a) Explain with suitable examples for employee involvement, motivation and empowerment.
- Or
- (b) What is International Standards for Organization (ISO)? Discuss its role in Total Quality Management (TQM).
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Reg. No.

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**Question Paper Code : 46013**

M.B.A. DEGREE EXAMINATION, AUGUST 2014.

Second Semester

DBA 1656 -- QUALITY MANAGEMENT

(Regulations 2007/2009)

(Use of statistical tables permitted)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A -- (10 × 2 = 20 marks)

1. What are the benefits of implementing TQM?
2. What is customer focus?
3. What is the impact of W.A. Shewhart's contributions on quality?
4. What is 8D methodology?
5. How process capability is evaluated?
6. How BPR is related to quality?
7. What is quality loss according to Taguchi?
8. What is the role of pareto chart in quality?
9. What is the need for quality systems?
10. How employee involvement benefits organizations?

PART B -- (5 × 16 = 80 marks)

11. (a) Discuss how customer focus enhances customer satisfaction.

Or

- (b) (i) Explain how the various types of quality costs with examples. (8)
- (ii) Explain service quality. (8)

12. (a) Discuss briefly the three phases of Juran's trilogy.

Or

- (b) What is statistical process control? Discuss how a control chart for averages is used as a defect prevention tool?

13. (a) The following data have been collected in a company manufacturing mobile phones. Construct a control chart for fraction nonconforming (p-chart) and comment on the process control.

Number Inspected	Number nonconforming	Number Inspected	Number Nonconforming
480	30	320	24
360	50	400	22
500	10	470	18
470	25	470	20
480	10	460	15
540	32	460	10
500	20	480	20
420	21	500	30

Or

- (b) What is Total Productive Maintenance? What are its objectives? Explain the five pillars of TPM.

14. (a) Discuss how Failure Mode Effects Analysis eliminates / reduces the chance of occurrence of potential failures.

Or

- (b) Write short notes on

- (i) POKA YOKE
- (ii) Benchmarking
- (iii) Cause and effects diagram.

15. (a) (i) Explain the concept of quality audit and its importance. (8)  
(ii) Explain the procedure for implementing ISO 9000 quality systems in service organizations. (8)

Or

- (b) Briefly discuss the concepts of TQM.

Reg. No. :

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**Question Paper Code : 96013**

M.B.A. DEGREE EXAMINATION, FEBRUARY/MARCH 2014.

Second Semester

DBA 1656 – QUALITY MANAGEMENT

(Regulations 2007/2009)

Time : Three hours

Maximum : 100 marks

(Use of statistical tables permitted)

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is TQM?
2. Give any four service quality dimensions.
3. What is Juran's trilogy?
4. Why quality circles are not so successful in Indian organizations?
5. What is the basis of variable control charts?
6. Define reliability?
7. What is meant by voice of customer?
8. What is quality loss according to Taguchi?
9. What are the benefits of implementing quality system?
10. What are the functions of quality council?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss the barriers to TQM implementation.

Or

- (b) Why the vision, mission and policy statements are important in a TQM programme? Explain these statements in detail with respect to any one organization.
12. (a) Which of the Deming's 14 points are most critical to the success of a TQM programme? Why?

Or

- (b) Briefly discuss the five pillars of 5S and the guidelines to practice them.

13. (a) The diameter of certain component is being controlled using  $\bar{X}$  and R control charts. The data on diameter in mm collected for 12 samples of three measurements each are given below.

Sample No.	$X_1$	$X_2$	$X_3$
1	6.29	6.36	6.40
2	6.30	6.31	6.22
3	6.28	6.31	6.33
4	6.34	6.30	6.31
5	6.19	6.28	6.30
6	6.13	6.29	6.34
7	6.30	6.39	6.25
8	6.08	6.27	6.22
9	6.23	6.26	6.33
10	6.31	6.31	6.33
11	6.35	6.30	6.36
12	6.23	6.30	6.30

Setup  $\bar{X}$  and R control charts. Is the process under control?

Or

- (b) (i) Explain the failure rate curve of a complex product. (8)
- (ii) Explain how TPM and TQM are related and their contribution to quality. (8)
14. (a) List the seven tools of quality. Draw the fish-bone diagram detailing the causes for poor performance of students in an University examination.

Or

- (b) Write short notes on the following :
- (i) House of quality. (5)
- (ii) FMEA. (5)
- (iii) Signal to noise ratios. (6)
15. (a) Briefly discuss the steps in implementing ISO 9000 quality system.

Or

- (b) Why leadership is important in TQM process? What are the qualities of a good leader? How a leader is different from a manager?



Reg. No. :

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**Question Paper Code : 86013**

M.B.A. DEGREE EXAMINATION, AUGUST 2013.

Second Semester

DBA 1656 – QUALITY MANAGEMENT

(Regulation 2007/2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List and rank the importance **factors of customer perceptions** that influence purchases.
2. Draft a quality statement for a car manufacturing company.
3. What are the consequences of not practicing 'SEIKETSU' in a production plant?
4. What are the **components** of Juran's trilogy towards process improvement?
5. List the objectives of TPM programme.
6. The diameter specified for a certain ring is  $20 \pm 0.05$ . Calculate the **process capability index** assuming the standard deviation of the production **process is** 0.25 mm. State whether the production process of the ring is capable of meeting the specification.
7. Draw the general structure of 'House of quality'.
8. What is signal-to-noise ratio?
9. What are the three conditions necessary to create employee empowerment?
10. State the significance of internal quality audits.

PART B – (5 × 16 = 80 marks)

11. (a) (i) "Quality is what customers perceive it to be". Do you agree with the statement? Support your answer with suitable explanation. (10)
- (ii) What is service quality? Explain the various elements of customer service. (6)

Or

- (b) (i) What are the four categories of quality cost? Discuss the various elements of each category. (10)
- (ii) "Various difficulties can be anticipated in the implementation of TQM programme". Validate the statement. (6)

12. (a) (i) Explain the Deming's fourteen point programme towards continuous improvement. (10)
- (ii) Explain how the 5 S practices are used to establish and maintain a productive and quality environment of an organization. (6)

Or

- (b) (i) What is a quality circle? Narrate the functioning of quality circle towards solving a quality problem. (10)
- (ii) Explain the contributions of Crosby in the prevention of defects in manufacturing. (6)

13. (a) (i) A sub group of 5 items each are taken from a manufacturing process at a regular interval. A certain quality characteristic is measured and  $\bar{X}$  and R values are computed. After 25 subgroups it is found that  $\sum \bar{X} = 357.50$  and  $\sum R = 8.80$ . If the specification limits are  $14.40 \pm 0.40$  and if the process is in statistical control, what conclusions can you draw about the ability of the process to produce items within specification? (10)
- (ii) What is six sigma? Describe the stages if achieving the six sigma status. (6)

Or

- (b) (i) What is BPR? Discuss the key features of BPR. (10)
- (ii) Define the term reliability. Explain the computation of reliability in series and parallel systems. (6)

14. (a) (i) With suitable example, describe how the voices of customer are translated into products/system design and process design. (10)
- (ii) What is 'critical success factor'? How is it important in benchmarking? (6)

Or

- (b) (i) Explain Failure Mode and Effect Analysis. (10)
- (ii) What is relationship diagram? With suitable example, explain the use of it. (6)
15. (a) (i) List the five levels in Maslow's hierarchy of needs and describe each of them. (10)
- (ii) Explain how computers and electronic communication influence the quality functions. (6)

Or

- (b) List and explain the various clauses of ISO 9004:2000 quality management system. (16)

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Reg. No. : 

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**Question Paper Code : 86013**

M.B.A. DEGREE EXAMINATION, FEBRUARY/MARCH 2013.

Second Semester

DBA 1656 — QUALITY MANAGEMENT

(Regulation 2007/2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define quality of conformance.
2. What are the components of appraisal costs?
3. What is the contribution of Dr. Walter A Shewhart to quality management?
4. What is a quality circle?
5. Write the mathematical equation for reliability.
6. How many defects per million opportunities are permissible in six sigma systems with and without shift of the central line?
7. What is POKA YOKE?
8. What is QFD?
9. What is a Quality Council?
10. What is ISO 9004:2000 meant for?

PART B — (5 × 16 = 80 marks)

11. (a) List and explain the dimensions of Product Quality with examples.

Or

- (b) List and explain the dimensions of Service Quality with examples.

12. (a) Explain Demings 14 points for Quality Management.

Or

- (b) Discuss the 5 S principles and the steps to implement the same with appropriate examples.

13. (a) In a cell phone manufacturing unit, the number of defectives were recorded

No. of Defectives :	2	1	5	1	4	5	2	3	1
Sample size :	50	55	80	70	90	60	72	80	90
No. of Defectives :	0	0	2	5	4	1	3	2	1
Sample size :	50	81	92	55	63	70	59	58	62
No. of Defectives :	5	0							
Sample size :	70	75							

Construct an appropriate chart and comment on the process.

Or

- (b) State and explain Business Process Re-engineering and its phases.

14. (a) Discuss the various types of quality loss functions with equations and appropriate examples.

Or

- (b) Prepare a product FMEA chart for a ball point pen refill.

15. (a) Explain the phases of Quality Audit in detail.

Or

- (b) Describe the steps in employee empowerment in detail.

Reg. No. :

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**Question Paper Code : 75513**

M.B.A. DEGREE EXAMINATION, AUGUST 2012.

Second Semester

DBA 1656 — QUALITY MANAGEMENT

(Regulation 2007/2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Quality Costs.
2. State any three objectives of TQM.
3. What are the three components of the Juran Trilogy.
4. Define 5S.
5. Give the objectives of the attribute charts.
6. Define Six Sigma concept.
7. What is Taguchi's Signal to Noise ratio?
8. List any two examples of Poka Yoke concept.
9. What is the need for ISO 9000?
10. List down the objectives of the internal audit.

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail the barriers of implementing Total Quality Management in an organization.

Or

- (b) Explain in detail the various dimensions of Product quality.

12. (a) What is Taguchi Quality Loss Function? Explain in detail the Quality Loss Function for Various Quality Characteristics.

Or

- (b) Bring out the contributions of Ishikawa to the field of quality management.

13. (a) Write an essay about Product life characteristics curve.

Or

- (b) What is DMAIC and DMADV? Explain the steps involved in DMAIC and DMADV.

14. (a) What is house of quality? Explain in detail the construction of the house of quality.

Or

- (b) What is FMEA? Explain the role of FMEA in quality management. Also highlight the scales used in FMEA.

15. (a) What are quality audits? List down the objectives and the situation under which quality audits are to be performed.

Or

- (b) Bring out the various principles of leadership. Also highlight what leadership style is most appropriate in a total quality setting and why?

Reg. No. :

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**Question Paper Code : 85513**

M.B.A. DEGREE EXAMINATION, FEBRUARY 2012.

Second Semester

DBA 1656 — QUALITY MANAGEMENT

(Regulation 2007/2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

**PART A — (10 × 2 = 20 marks)**

1. What are the different views of quality?
2. What is quality policy?
3. What is 5S?
4. Draw taguchi's loss function graph.
5. What is six sigma?
6. What is process capability?
7. What are the objectives of QFD?
8. What are taguchi's principle contributions to statistics?
9. What are all the pillars of TQM?
10. What is ISO?

**PART B — (5 × 16 = 80 marks)**

11. (a) Explain cost of quality in detail. (16)

Or

- (b) Discuss the customer perception of quality, customer feedback and customer retention. (16)



12. (a) Discuss the contribution of Deming's and Juran's in quality management. (16)

Or

- (b) Explain quality circle in detail. (16)

13. (a) (i) Determine the control limits for  $\bar{X}$  and  $R$  charts if  $\Sigma\bar{X} = 357.50$ ,  $\Sigma R = 9.90$ , number of subgroups = 20. It is given that  $A_2 = 0.18$ ,  $D_3 = 0.41$ ,  $D_4 = 1.59$  and  $d_2 = 3.735$ . Also find the process capability (8)
- (ii) Briefly describe the methodology of constructing and using control charts. (8)

Or

- (b) Explain Total productive maintenance and Business process re-engineering in detail. (16)

14. (a) Explain seven tools of quality and Seven new management tools. (16)

Or

- (b) Write step by step procedure for implementing a FMEA of a product. (16)

15. (a) (i) Explain the role of leadership in detail. (8)
- (ii) Explain types and stages of quality audit in detail. (8)

Or

- (b) Explain quality council in detail. (16)

Reg. No. :

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**Question Paper Code : 95513**

M.B.A. DEGREE EXAMINATION, AUGUST 2011.

Second Semester

DBA 1656 — QUALITY MANAGEMENT

(Regulation 2007/2009)

Time : Three hours

Maximum : 100 marks

(Use of Statistical table permitted)

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is Quality policy statement?
2. Define cost of quality.
3. What do you mean by PDCA cycle?
4. What is the significance of Quality loss function?
5. What is Six-sigma process capability?
6. What are the benefits of Re-engineering?
7. What is voice of customer?
8. List the stages in FMEA.
9. Define Leadership.
10. What is Video conferencing?

PART B — (5 × 16 = 80 marks)

11. (a) "Understanding and satisfying the customer perception of quality is a challenging task" – Discuss. (16)

Or

- (b) What is TQM? What are the characteristics of TQM? Also explain any five critical success factors of TQM. (2 + 6 + 8 = 16)

12. (a) Enumerate the contributions of Joseph Juran to the field of Total Quality Management. (16)

Or

- (b) Explain how 5 S principles help in improving and maintaining Good House Keeping. (16)

13. (a) (i) Explain the meaning and significance of statistical process control. (8)

- (ii) Explain the procedure of constructing control charts for attributes. (8)

Or

- (b) An Engineering department is planning their schedule for the following week. They need an understanding of last week's performance. The schedule called for two 8 hours shift per day for five days. Down time charged to production averaged 66 minutes per day. Down time charged to maintenance averaged 120 minutes per day.

- (i) Calculate the actual running time and percentage of available time. (4)

- (ii) If the total products produced was 1200 against the standard production of 1400, calculate the theoretical and actual cycle time per unit. Assume 10% planned down time for theoretical cycle time. (4)

- (iii) What was the performance efficiency? (2)

- (iv) If 30 units out of the 1200 units are found non-conforming, what is the rate of quality products? (3)

- (v) What is the overall equipment effectiveness? (3)

14. (a) Discuss the procedure of Building House of Quality. (16)

Or

(b) Explain the Taguchi's parameter design using an example. (16)

15. (a) Explain the steps followed to get ISO-9000 certification for an educational institute. (16)

Or

(b) (i) What effect will e-learning have on public education from kindergarten through the 12th grade? (8)

(ii) Describe some of the ways the Internet has had an impact on your activities. (8)

Reg. No. :

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**Question Paper Code : 85513**

M.B.A. DEGREE EXAMINATION, FEBRUARY 2011.

Second Semester

DBA 1656 — QUALITY MANAGEMENT

(Regulation 2007/2009)

Time : Three hours

Maximum : 100 marks

Use of Statistical tables permitted.

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What do you mean by cost of quality?
2. What is Customer retention?
3. What are the concepts of quality circle?
4. What is 8D methodology?
5. What is terotechnology?
6. What do you mean by Six Sigma?
7. What are the stages of FMEA?
8. What is POKA YOKE?
9. State the importance of quality Audits.
10. What is TQM culture?

PART B — (5 × 16 = 80 marks)

11. (a) State the dimensions of quality, which are applicable to services as well as manufactured goods. (16)

Or

- (b) Discuss the various internal and external factors that influence customer perception. (16)

12. (a) State deming's 14 points for quality management and explain the interrelationships among them. (16)

Or

- (b) Explain how does Taguchi's approach for measuring variation support the Deming philosophy and trace the strength and weakness of Taguchi's ideas of quality management. (16)

13. (a) From the following record of the defectives observed during, inspection process of an automated machine, draw the appropriate control chart and comment on the process. (16)

Sample No.	Sample Size	Number of defective bolts
1	25	3
2	25	2
3	25	1
4	50	5
5	50	5
6	50	7
7	75	12
8	75	9
9	75	9

Or

- (b) Discuss about the application of SPC and acceptance sampling in quality management. (16)

14. (a) (i) Find out average quality loss for a microwave oven as per details given below :

$K = 100$  Target value =  $600^{\circ}\text{C}$  Four reading taken when the oven was set at  $200^{\circ}\text{C}$  were : 201, 203, 202, 202. (10)

- (ii) Explain seven new management tools. (6)

Or

- (b) (i) What is house of quality? How to build a HOQ - Explain in detail. (8)

- (ii) Discuss the application of Poka yoke in a two - wheeler manufacturing company. (8)

15. (a) (i) Briefly discuss various awards issued by India for TQM. (8)

- (ii) List the characteristics of excellent leadership of TQM. (8)

Or

- (b) (i) Explain in detail about IS/ISO 9004 : 2000. (8)

- (ii) Explain quality management systems for manufacturing organizations. (8)



PART B — (5 × 16 = 80 marks)

11. (a) Enumerate the various principles of quality management in detail.

Or

- (b) Write an essay about the various dimensions of product and service quality. Also comment on the following statement “service quality is more difficult to define than product quality”.

12. (a) Enumerate the contributions made by W. Edwards Deming’s to the field of quality management.

Or

- (b) What contributions to the quality movement is Philip B. Crosby known for?

13. (a) Describe process capability both in layman’s terms and also quantitatively and relate capability to the notion of 6-sigma.

Or

- (b) Explain the following concepts : (4 × 4 = 16)

- (i) Continual Improvement
- (ii) Predictability of Processes
- (iii) Elimination of Wastes
- (iv) Sampling.

14. (a) What are FMEA and FMECA and what is the primary difference between the two?

Or

- (b) List and explain in detail any three problem solving tools.

15. (a) Explain the various phases involved in the implementation of TQM in an organization.

Or

- (b) Write an essay about ISO 9000 : 2000.



Reg. No. : 

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**Question Paper Code : YY 1513**

M.B.A. DEGREE EXAMINATION, FEBRUARY 2010.

Second Semester

DBA 1656 — QUALITY MANAGEMENT

(Regulation 2007)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the benefits of TQM?
2. What is customer perceived quality?
3. What are 5S?
4. What is quality loss function?
5. What do you mean by process capability?
6. What are the six big losses?
7. What is Bench Marking?
8. What are the objectives of QFD?
9. What is Leadership?
10. What are the duties of the Quality Council?

PART B — (5 × 16 = 80 marks)

11. (a) Explain Quality vision ; mission and policy statement, with an example for each statement. (16)

Or

- (b) Define Cost of Quality and discuss the following : (2+4+4+6)

- (i) Prevention cost
- (ii) Appraisal cost
- (iii) Failure cost.

12. (a) Discuss the contributions of Deming towards Total Quality Management. (16)

Or

- (b) Explain in detail the concept of quality circle. (16)

13. (a) In a factory producing spark plug the number of defectives found in inspection of 20 lots of 100 each, is given below :

Lot number	Number of defectives
1	5
2	10
3	12
4	8
5	6
6	4
7	6
8	3
9	3
10	5
11	4
12	7
13	8
14	3
15	3
16	4
17	5
18	8
19	6
20	10

- (i) Construct the appropriate Control Chart and state whether the process is in statistical control. (10)
- (ii) Determine the Sample Size when a quality limit not worse than 9% is desirable and a 10% bad product will not be permitted more than three times in thousand. (6)

Or

- (b) Explain in detail the Concept of Business process Re-engineering. (16)
14. (a) (i) The Taguchi loss function for a certain component is given by  $L(X)=7500 \cdot (X - N)^2$ , where X = the actual value of a critical dimension and N is its Nominal Value. Company Management has decided that the maximum loss that can be accepted is Rs. 400. If the nominal dimension is 35.00 mm. Find the tolerance limits.(10)
- (ii) Explain the concept of Signal to Noise ratio. (6)

Or

- (b) A copying company receive a lot of complaints about poor quality photo copies. Analyse this problem through a fish-bone diagram. (16)
15. (a) Explain the various documents that are to be prepared while implementing Quality Management System in an organization. (16)

Or

- (b) Write short notes on the following : (4 × 4 = 16)
  - (i) First party audit
  - (ii) QS 9000
  - (iii) Esteem needs
  - (iv) Extrinsic rewards.

Reg. No. :

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**Z 1513**

M.B.A. DEGREE EXAMINATION, FEBRUARY 2009.

Second Semester

DBA 1656 — QUALITY MANAGEMENT

(Regulation 2007)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Differentiate between quality vision and mission.
2. What are the dimensions of quality?
3. What are the contributions of Walter Shewhart?
4. What is 8D methodology?
5. What is Six Sigma?
6. What are the benefits of TPM?
7. List the stages of FMEA.
8. What are the steps of benchmarking process?
9. Why quality audit is required?
10. What is empowerment?

PART B — (5 × 16 = 80 marks)

11. (a) Develop and explain TQM framework for an engineering industry.

Or

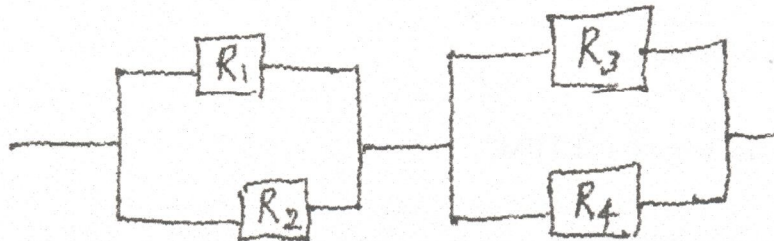
- (b) (i) Why to measure quality costs? Classify the various types of quality costs and give examples. (10)
- (ii) What are the customer perceptions of quality? Explain. (6)
12. (a) Explain Deming's fourteen principles for – Quality Management. How do you feel that these will be useful in today's context. (12+4)

Or

- (b) (i) Explain 5S in detail. (8)
- (ii) What is a quality circle? How do they function? What are its benefits? (2+4+2)
13. (a) Discuss the construction and application of control charts for variables to monitor a manufacturing process.

Or

- (b) (i) Explain the product life characteristic curve. (8)
- (ii) Find the system reliability of the following configuration. (8)



$$R_1 = 0.90, R_2 = 0.90, R_3 = 0.85, R_4 = 0.90.$$

14. (a) Discuss the application of Quality Function Deployment (QFD) for improving the quality of a product with a suitable example.

Or

- (b) (i) Explain Taguchi's signal to noise ratio concept and its application. (8)
- (ii) Explain the construction and application of cause and effect diagram with an example. (8)
15. (a) Briefly describe the main elements of ISO 9000 quality management system. How can this system be used to improve quality performance? Explain.

Or

- (b) Explain how each element of TQM contributes to products and services of superior quality.
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Reg. No. :

**LL 1613**

M.B.A. DEGREE EXAMINATION, AUGUST 2009.

Second Semester

DBA 1656 — QUALITY MANAGEMENT

(Regulation 2007)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are quality statements?
2. Mention the four categories of quality of cost.
3. Define KAIZEN.
4. What is Deming wheel?
5. What is process capability?
6. What is TeroTechnology?
7. What are the benefits of QFD?
8. What is POKA YOKE?
9. What are the needs of ISO 9000?
10. What do you mean by quality auditing?

PART B — (5 × 16 = 80 marks)

11. (a) (i) What are the dimensions of product and service quality? Explain. (8)  
(ii) What are the barriers for implementing TQM? Explain. (8)

Or

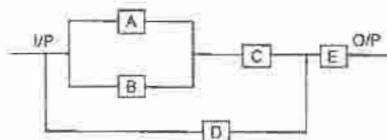
- (b) Discuss the following in detail :  
(i) Customer perception of quality. (8)  
(ii) Cost of quality. (8)
12. (a) Explain the Juran's quality trilogy in detail. (16)

Or

- (b) Explain the following :  
(i) Taguchi's quality loss function. (8)  
(ii) Quality circle. (8)
13. (a) (i) Explain the steps for implementing Statistical Process Control. (6)  
(ii) Write short notes on the following :  
(1) Control charts for variables (4)  
(2) Control charts for attributes (4)  
(3) Control Limits. (2)

Or

- (b) (i) How will you determine the system reliability for parallel and series connections? (4)  
(ii) Find the system reliability for the following configuration : (12)



$$R_A = 0.7; R_B = 0.7; R_C = 0.9; R_D = 0.8; R_E = 0.9.$$



14. (a) Explain the components of House of quality related with QFD process.(16)

Or

(b) (i) Discuss the most common errors in bench marking. (8)

(ii) Explain the steps involved in FMEA. (8)

15. (a) Discuss the steps for implementing a quality management system in any company. (16)

Or

(b) Write short notes on the following :

(i) Maslow's Motivational theory (8)

(ii) Empowerment (4)

(iii) Recognition and reward. (4)