



Indra Ganesan

COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

NAAC DOCUMENTS

QUALITY INDICATOR FRAME WORK

CRITERION – 1

CURRICULAR ASPECTS

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL

INDRA GANESAN COLLEGE OF ENGINEERING





Criteria 1	Curricular Aspects	100
-------------------	---------------------------	------------

Curricular Planning and Implementation (20)

The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

Table of Content

S. No	Description
1.	Preface of the Course File
2.	Department Workload
3.	Subject Syllabus
4.	Course Plan
5.	Content Beyond Syllabus
6.	Rubrics Base Evaluation
7.	Assignment Answer Sheet
8.	Internal Assessment Schedule
9.	Question Paper
10.	Answer Key
11.	Sample Answer Sheet
12.	Co Based Mark Entry
13.	Root Cause Analysis
14.	Internal Assessment Retest Schedule
15.	Retest Question Paper
16.	Retest Sample Answer Sheet
17.	Retest Co Based Mark Entry
18.	Academic Audit Form
19.	Student Feed Back on Faculty

INDRA GANESAN COLLEGE OF ENGINEERING
IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 620 012, India
(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

DEPARTMENT OF MANAGEMENT STUDIES

PREFACE OF THE COURSE FILE

Batch : 2019-2021

Academic Year : 2019-2020 / ODD

Program : MANAGEMENT STUDIES

Year & Semester : 1st Year / 1st Semester

Course Code : BA5107 NBA Course Code: C107

Name of the Course : Total Quality Management

Faculty in-charge : Mrs.N.Minipriya, AP/MBA


Signature of the Faculty in-charge


HoD / MBA

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

Indra Ganesan College of Engineering

Department of Management Studies

Work Allocation - Odd Semester 2019-20

S.NO.	Teacher's Name	Course Code	Course Name	Semester	Lecture / week	Total
1	Dr.B.Thiagarajan Professor / MBA	BA 5017	Managerial Behaviour & Effectiveness	III	4	8
		BA 5015	Industrial Relations & Labour Welfare	III	4	
2	V.S.Guna AP / MBA	BA 5028	Project Management	III	4	8
		BA 5004	Integrated Marketing Communication	III	4	
3	J.V.Velu AP?MBA	BA 5102	Principles of Management	I	4	8
		BA 5105	Organizational Behaviour	I	4	
4	N.Minipriya AP / MBA	BA 5301	International Business Management	III	4	11
		BA 5107	Total Quality Management	I	4	
		BA5111	Spoken and Written Communication	I	3	
5	L.Nisha Martina AP / MBA	BA 5011	Merchant Banking and Financial Services	III	4	8
		BA 5005	Retail Marketing	III	4	
6	B.Thazhali AP/MBA	BA 5003	Customer Relationship Management	III	4	10
		BA 5009	Corporate Finance	III	4	
		Library		III	2	
7	T.Sangeetha AP/MBA	BA 5014	Entrepreneurship Development	III	4	10
		BA 5030	Supply Chain Management	III	4	
8	Dr.C.Soundarajan AP / MBA	BA 5103	Professional Skill Development	III	2	9
			Accounting for Management	I	5	
		BA 5012	Security Analysis & Portfolio Management	III	4	

[Signature]
Class Co-ordinator

[Signature]
HOD

[Signature]
PRINCIPAL

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

OBJECTIVE:

- To learn the quality philosophies and tools in the managerial perspective.

UNIT I INTRODUCTION

9

Quality vision, mission and policy statements. Customer Focus-customer perception of quality, Translating needs into requirements, customer retention. Dimensions of product and service quality. Cost of quality.

UNIT II PRINCIPLES AND PHILOSOPHIES OF QUALITY MANAGEMENT

9

Overview of the contributions of Deming, Juran Crosby, Masaaki Imai, Feigenbaum, Ishikawa, Taguchi techniques-introduction, loss function, parameter and tolerance design, signal to noise ratio. Concepts of Quality circle, Japanese 5S principles and 8D methodology.

UNIT III STATISTICAL PROCESS CONTROL

9

Meaning and significance of statistical process control (SPC) construction of control charts for variables and attributed. Process capability – meaning, significance and measurement – Six sigma - concepts of process capability. Reliability concepts-definitions, reliability in series and parallel, product life characteristics curve.Total productive maintenance (TMP), Terotechnology. Business process Improvement (BPI) principles, applications, reengineering process, benefits and limitations.

UNIT IV TOOLS AND TECHNIQUES FOR QUALITY MANAGEMENT

9

Quality functions development (QFD) – Benefits, Voice of customer, information organization, House of quality (HOQ), building a HOQ, QFD process. Failure mode effect analysis (FMEA) – requirements of reliability, failure rate, FMEA stages, design, process and documentation. Seven Tools (old & new). Bench marking and POKA YOKE.

UNIT V QUALITY SYSTEMS ORGANIZING AND IMPLEMENTATION

9

Introduction to IS/ISO 9004:2000 – quality management systems – guidelines for performance improvements. Quality Audits. TQM culture, Leadership – quality council, employee involvement, motivation, empowerment, recognition and reward - TQM framework, benefits, awareness and obstacles.

TOTAL: 45 PERIODS**OUTCOME:**

- To apply quality philosophies and tools to facilitate continuous improvement and ensure customer delight.

REFERENCES :

- Dale H.Besterfield, Carol Besterfield-Michna, Glen H. Besterfield, Mary Besterfield-Sacre, Hermant Urduwasheshe, Rashmi Urduwasheshe, Total Quality Management, Revised Third edition, Pearson Education, 2011
- Shridhara Bhat K, Total Quality Management-Text and Cases, Himalaya Publishing House, II Edition 2010
- Douglas C. Montgomery, Introduction to Statistical Quality Control, Wiley Student Edition, 4th Edition, Wiley India Pvt Limited, 2008.
- James R. Evans and William M. Lindsay, The Management and Control of Quality, Sixth Edition, Thomson, 2005.
- Poornima M.Charantimath, Total Quality Management, Pearson Education, Second Edition , 2011
- Indian standard-quality management systems –Guidelines for performance improvement (Fifth Revision), Bureau of Indian standards, New Delhi.

B. Theer
HOD

16

Principal

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

INDRA GANESAN COLLEGE OF ENGINEERING
 IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 620 012, India
 (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

DEPARTMENT OF MANGEMENT STUDIES

Lecture Schedule

Degree/Program: MBA

Duration: Sep 2019 – Jan. 2020

Course Code & Name: BA5107 – Total Quality Management

Semester: I

Faculty: Ms. Minipriya N

OBJECTIVES:

To learn the quality philosophies and tools in the managerial perspective.

COURSE OUTCOMES:

After the course, the student should be able to:

CO	Course Outcomes	POs	PSOs
CO1:	To apply quality philosophies and tools to facilitate continuous improvement	1,2,3,4	1,2
CO2:	Overview of the contributions of Gurus	1,2,3,4	1,2
CO3:	Explain the statistical process of Quality	1,2,3,4	1,2
CO4:	Discuss the techniques of Quality	1,2,3,4	1,2
CO5:	Enhance Quality Framework	1,2,3,4	1,2
CO6:	Overview of ensure customer delight.	1,2,3,4	1,2

S.No	Date	Period	Topics to be Covered	Book
UNIT - I INTRODUCTION				
				Target periods :9
1	13/9/19	3	Quality – vision, mission	T3
2	16/9/19	2	policy statements	T3
3	17/9/19	4	Customer Focus	T3
4	18/9/19	3	customer perception of quality	T3
5	19/9/19	5	Translating needs into requirements	T3
6	20/9/19	3	customer retention	T3
7	23/9/19	2	Dimensions of product and service quality	T3
8	24/9/19	4	Cost of quality.	T3
9	25/9/19	3	Case Study	T3
UNIT II - PRINCIPLES AND PHILOSOPHIES OF QUALITY MANAGEMENT				
				Target Hours :9
10	26/9/19	5	Overview of the contributions of Deming, Juran Crosby	T3
11	27/9/19	3	Masaaki Imai, Feigenbaum, Ishikawa, Taguchi techniques	T3
12	02/10/19	5	introduction, loss function	T3
13	02/10/19	3	parameter and tolerance design	T3
14	9/10/19	3	signal to noise ratio	T3
15	10/10/19	5	Concepts of Quality circle	T3
16	11/10/19	3	Japanese 5S principles	T3
17	14/10/19	2	8D methodology	T3
18	15/10/19	4	Case Study	T3
UNIT III – STATISTICAL PROCESS CONTROL				
				Target Hours :9
19	16/10/19	3	Meaning and significance of statistical process control (SPC)	T3
20	18/10/19	3	construction of control charts for variables and attributed. Process capability	T3


Dr. G. Balakrishnan, M.E., Ph.D.,

Principal

Indra Ganesan College of Engineering

IG Valley, Madurai Main Road


Manikandam, Trichy-620 012.

21	01/11/19	3	meaning, significance and measurement – Six sigma - concepts of process capability	T3
22	4/11/19	2	Reliability concepts – definitions, reliability in series and parallel, product life characteristics curve	T3
23	5/11/19	4	Total productive maintenance (TMP), Terotechnology	T3
24	6/11/19	3	Business process Improvement (BPI) – principles	T3
25	7/11/19	5	applications, reengineering process	T3
26	8/11/19	3	benefits and limitations	T3
27	11/11/19		Case Study	T3
UNIT IV – TOOLS AND TECHNIQUES FOR QUALITY MANAGEMENT				Target Hours :9
28	13/11/19	2	Quality functions development (QFD) – Benefits	T3
29	14/11/19	5	Voice of customer, information organization, House of quality (HOQ)	T3
30	21/11/19	5	building a HOQ, QFD process. Failure mode effect analysis (FMEA)	T3
31	22/11/19	3	requirements of reliability, failure rate	T3
32	25/11/19	2	FMEA stages, design	T3
33	26/11/19	4	process and documentation	T3
34	27/11/19	3	Seven Tools (old & new)	T3
35	28/11/19	5	Bench marking and POKA YOKE	T3
36	29/11/19	3	Case Study	T3
UNIT V - Introduction to IS/ISO 9004:2000 – quality management systems				Target Hours:9
37	25/11/19	4	Introduction to IS/ISO 9004:2000 – quality management systems	T3
38	30/11/19	3	Guidelines for performance improvements	T3
39	02/12/19	2	Quality Audits. TQM culture, Leadership	T3
40	03/12/19	4	Quality council, employee involvement	T3
41	04/12/19	3	Motivation, empowerment,	T3
42	5/12/19	5	Recognition and reward	T3
43	6/12/19	3	TQM framework	T3
44	7/12/19	4	Benefits of TQM framework	T3
45	9/12/19	2	awareness and obstacles	T3
Content Beyond the Syllabus				
46	12/12/19	1-8	Production Management	

Book Reference - Text Books

Sl. No	Title of the Book	Author	Publisher	Year
T1	Total Quality Management (Revised 3 rd Edition)	Dale H. Besterfield, Carol Besterfield – Michna, Glen H. Besterfield, Mary Besterfield – Sacre, Hermant – Urdhwarashe, Rashmi Urdhwarashe	Pearson Education	2011
T2	Total Quality Management – Text and Cases (2 nd Edition)	Shridhara Bhat K	Himalaya Publishing House	2010
T3	Introduction to Statistical Quality Control (4 th Edition)	Uma Sekaran and Roger Bougie	Wiley India Pvt Limited	2008
T6	The Management and Control of Quality (6 th Edition)	James R. Evans and William M. Lindsay	Thomson	2005


Signature of the Faculty in-charge


B. Theer
HOD / MBA

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

INDRA GANESAN COLLEGE OF ENGINEERING
 IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 620 012, India
 (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

DEPARTMENT OF MANAGEMENT STUDIES

Identification of Curricular Gap & Content Beyond Syllabus(CBS)

Name of the Faculty : N.Minipriya

Course Code & Name: BA5107 – Total Quality Management

Degree & Program:MBA

Semester & Section: II / A

Academic Year: 2019 -2020 /ODD

I. Mapping of Course Outcomes with POs & PSOs.(before CBS)

Table.1 Mapping of COs, C, PSOs with POs - before CBS.

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2
C107.1	3	2	1	1	-	-	2	1	1	2	2
C107.2	3	2	1	1	-	-	2	1	1	2	2
C107.3	3	2	1	1	-	-	2	1	1	2	2
C107.4	3	2	1	1	-	-	2	1	1	2	2
C107.5	3	2	1	1	-	-	2	1	1	2	2
C107.6	3	2	1	1	-	-	2	1	1	2	2

II. Identification of content beyond syllabus.


Table.2 Identification of content beyond syllabus


Details of Content Beyond Syllabus(CBS) added	POs strengthened/ vacant filled	CO/Unit
Production Management	PO5(2) Vacant filled	C107.5 & C107.6/ IV & V

III. Mapping of Course Outcomes with POs & PSOs. (After CBS)

Table.3 Mapping of COs, C, PSOs with POs- after CBS.

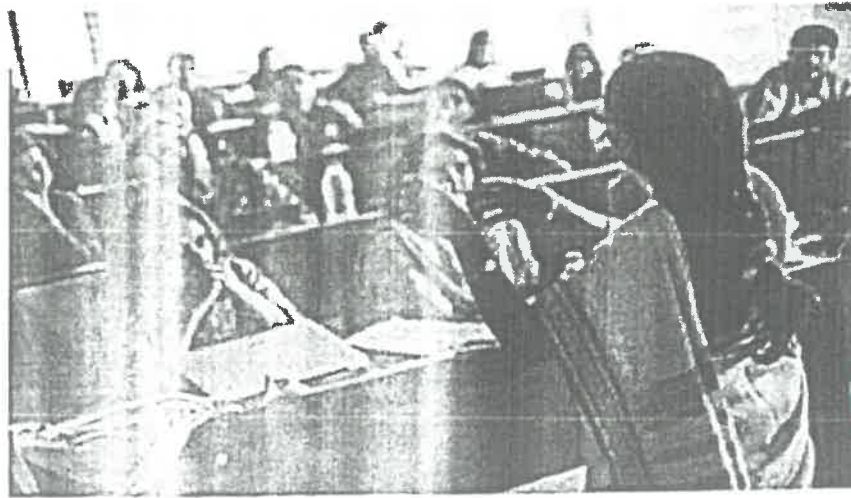
Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PSO1	PSO2
C107.1	3	2	1	1	-	-	2	1	1	2	2
C107.2	3	2	1	1	-	-	2	1	1	2	2
C107.3	3	2	1	1	-	-	2	1	1	2	2
C107.4	3	2	1	1	-	-	2	1	1	2	2
C107.5	3	2	1	1	*2	-	2	1	1	2	2
C107.6	3	2	1	1	*2	-	2	1	1	2	2


Signature of the Faculty


HoD/MBA

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.



PRODUCTION MANAGEMENT

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
Kendrasaipalayam, Main Road
Manikandam, Trichy-620 012.

INTRODUCTION

The Subject of Production Management is studied under different headings such as Production Planning and control, Production and Inventory control, production and operations control and many more. Whatever may be the title of the subject, the contents of the subject are more or less one and the same. Before we discuss about production management, let us discuss about product, production and management. This will give us a rough idea about production Management and with what a production manager has to deal with.

PRODUCTION

Production means application of processes. (Technology) to the raw material to add the use and economic values to arrive at desired product by the best method, with out sacrificing the desired quality. We have three ways of Production, they are:

- (i) Production by Disintegration
- (ii) Production by Integration
- (iii) Production by Service
- (iv) Production by Disintegration: By separating the contents of Crude oil or a mixture the desired products are produced.
- (v) Production by Integration: In this type of Production various Components of the products are assembled together to get the desired product.
- (vi) Production by Service: Here the Chemical and Mechanical Properties of materials are improved without any physical change.

MANAGEMENT

Management can be explained as an art or science, (in fact it is a combination of art and science) of getting things done by the people, by planning, coordinating, organizing, directing and controlling the activities to meet specified goals, with in the frame work of agreed policies.

BENEFITS DERIVED FROM EFFICIENT PRODUCTION MANAGEMENT

The efficient Production Management will give benefits to the various sections of the society. They are:

- (i) Consumer benefits from improved industrial Productivity, increased use value in the product. Products are available to him at right place, at right price, at right time, in desired quantity and of desired quality.
- (ii) Investors: They get increased security for their investments, adequate market returns, and creditability and good image in the society.

- (iii) Employee gets adequate Wages, Job security, improved working conditions and increased Personal and Job satisfaction.
- (iv) Suppliers: Will get confidence in management and their bills can be realized without any delay.
- (v) Community : community enjoys Benefits from economic and social stability.
- (vi) The Nation will achieve prospects and security because of increased Productivity and healthy industrial atmosphere.

DEFINITION OF PRODUCTION MANAGEMENT

Production management is a function of Management, related to planning, coordinating and controlling the resources required for production to produce specified product by specified methods, by optimal utilization of resources.

OBJECTIVE OF PRODUCTION MANAGEMENT

The objective of Production Management is to produce the desired product or specified product by specified methods so that the optimal utilization of available resources is met with.

SCOPE OF PRODUCTION MANAGEMENT:

The Production Management consists of Planning, selection of materials, planning of processes, Routing, Scheduling and controlling the activities etc., Take the example of an Educational Institution/University. Here also selection of raw students, Planning of the Course Work, Educating the students and conducting the examination.

FUNCTIONS OF PRODUCTION MANAGEMENT DEPARTMENT

The functions of Production Management depend upon the size of the firm. In small firms the production Manager may have to look after production planning and all the students in the first grade. To avoid this situation an external person does correction of answer scripts, so that the quality of answers are correctly judged. control along with Personnel, all the students in the first grade. To avoid this situation an external person does correction of answer scripts, so that the quality of answers are correctly judged.

PLACE OF PRODUCTION MANAGEMENT DEPARTMENT IN THE ORGANISATION

Production is the center of all activities of an organization. This is to say all the activities of an organization, such as: Finance, Personnel, Marketing...etc., are exists in an organization because of production activity.

TYPES OF PRODUCTION SYSTEMS

- (i) Type of production
- (ii) Size of the Plant
- (iii) Type of Production
 - (a) Job Production
 - (i) The Job produced only once
 - (ii) The job produced at irregular intervals
 - (iii) The Jobs Produced periodically at regular intervals
 - (b) Batch Production
 - (i) A batch produced only once
 - (ii) A Batch produced at irregular intervals as per Customer order or when the need arises
 - (iii) A Batch Produced periodically at known Intervals
 - (c) Continuous Production
 - (i) Mass Production



Dr. G. Balakrishnan, M.E., Ph.D.,

Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

(ii) Flow Production

Inventory Control

- Importance of materials availability at various stages of production.
- Inventory Control & Stores Management
- Complex Function
- No over-stocking
- Finance
- Obsolescence
- Space etc

Materials Management

Materials form major part of the Product cost - 60% or so

- With contribution at say 15%, every % saved in materials is equal to approx 4% increase in Sales.
- Has direct bearing on the profitability
- Timely and right quality of materials availability decides the overall productivity of any organisation.
- Cannot afford too much or too little -- both dangerous for survival and growth.

Just in Time Production System

Inventory forms one of the major cost of production Inventory is a must to enable smooth and cost effective production and hence one looks for most optimum inventory planning balancing between the two objectives.

Just in time (JIT) as the name suggests is to work towards getting parts at a workstation just when they are required and move through the operations quickly.

Essentials for JIT System to succeed:

- High quality and strong vendor relationship
- Vendor reliability
- Plant reliability
- Adequate Vendor and Captive plant capacities
- Strong back ups
- Fairly steady demand


SCHEDULING

Business plan transformed into a Master Production plan

- Master production plan - Derive resource requirements and check availability
 - Labour, skills/numbers
 - Plant & machinery
 - Finance
 - Utilities and services and decide and/or agree on the plan

Objectives

- Meet due dates
- Minimise late completion of jobs or tardiness
- Minimise completion time
- Minimise response time
- Minimise idle time
- Minimise overall costs
- Minimise WIP and other inventories
- Maximise resource utilisation.


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

INDRA GANESAN COLLEGE OF ENGINEERING

IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 620 012, India
(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

DEPARTMENT OF MANAGEMENT STUDIES

Assignment Answer Sheet

Name of the Student: Anitha. V

AU Register Number: 811219631003

Assignment - 01		Date of Issue:	Marks	10
Course code	BA5107	Course Title	Total Quality Management	
Year	I	Semester	I	Date of Submission:

Q.No	Questions	CO
1	Dimensions of Quality	C107-1
2	Frameworks of Total Quality Management	C107-1

Mark Allocation

Rubrics	Marks Allocated	Marks obtained
Content Quality	6	5
Presentation Quality	2	1
Timely submission	2	2
Total marks	10	8


Name and Signature of the Faculty Incharge


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.


B. T. Keer
HoD/MBA



Indra Ganesan

COLLEGE OF ENGINEERING
(Approved by AICTE & Affiliated to Anna University, Chennai)

DEPARTMENT OF MANAGEMENT STUDIES

I - MBA / INTERNAL ASSESSMENT TEST - I

Date	Session / Time	Subjects Code / Name
21.10.2019	FN / 11.00 to 12.30	BA5101 - ECONOMIC ANALYSIS FOR BUSINESS
	AN / 02.00 to 03.30	BA5102 - PRINCIPLES OF MANAGEMENT
22.10.2019	FN / 11.00 to 12.30	BA5103 - ACCOUNTING FOR MANAGEMENT
	AN / 02.00 to 03.30	BA5104 - LEGAL ASPECTS OF BUSINESS
23.10.2019	FN / 11.00 to 12.30	BA5105 - ORGANIZATIONAL BEHAVIOUR
	AN / 02.00 to 03.30	BA5106 - STATISTICS FOR MANAGEMENT
24.10.2019	FN / 11.00 to 12.30	BA5107 - TOTAL QUALITY MANAGEMENT

B. Theerth
HoD / MBA

G. Balakrishnan
Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

G. Balakrishnan
PRINCIPAL

Register Number:



INDRA GANESAN COLLEGE OF ENGINEERING

IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 620 012, India
(Approved by AICTE, New Delhi and affiliated to Anna University, Chennai)

Internal Assessment Exam - I			Date/Session	24.10.19/ FN	Marks	50
Course code	BA5107	Course Title	Total Quality Management			
Regulation	2017	Duration	90 minutes	Academic Year	2019-2020	
Year	I	Semester	I	Department	MBA	

COURSE OUTCOMES

CO1:	To apply quality philosophies and tools to facilitate continuous improvement
CO2:	Overview of the contributions of Gurus
CO3:	Explain the statistical process of Quality
CO4:	Discuss the techniques of Quality
CO5:	Enhance Quality Framework
CO6:	Overview of ensure customer delight.

Q.No.	Question	CO	BTS
PART A (Answer all the Questions 10 x 2 = 20 Marks)			
1	What is meant by quality?	C203.1	K2
2	Write any five characteristics of quality.	C203.1	K2
3	What do you mean by Total Quality Management?	C203.1	K2
4	What is PDCA cycle?	C203.1	K2
5	What are the 4 pillars of TQM?	C203.1	K2
6	What are the six basic concepts that a successful TQM programme requires?	C203.2	K2
7	What are the three components of the Juran Trilogy?	C203.2	K2
8	List the dimensions of quality.	C203.2	K1
9	Give the Objectives of TQM?	C203.2	K1
10	What does a typical meeting agenda contain after establishing the TQM?	C203.2	K2
PART B (Answer all the Questions 3 x 10 = 30 Marks)			
11a	Discuss the various dimensions of product quality in detail.	C203.1	K2
OR			
11b	Explain in detail the basic concepts and principles of TQM	C203.1	K2
12a	Explain in detail Deming's 14 points.	C203.1	K2
OR			
12b	What does a typical meeting agenda contain after establishing the TQM?	C203.2	K2
13a	Write about tangible and intangible benefits of TQM.	C203.1	K2
OR			
13b	Explain the steps necessary to implement the Quality Management System?	C203.2	K2


Course Faculty

(Name /Sign / Date)


HoD

(Name /Sign / Date)

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal

Indra Ganesan College of Engineering


IG Valley, Madurai Main Road

Manikandam, Trichy-620 012.

Internal Assessment Exam - I
BA5107 – Total Quality Management
Answer Key
PART A

(Answer all the Questions 10 x 2 = 20 Marks)

1. **What is meant by quality?**
Quality refers to certain standards and the ways and means by which those standards are achieved, maintained and improved. Quality is not just confined to products and services. It is a homogeneous element of any aspect of doing things with high degree of perfection.
2. **Write any five characteristics of quality.**
 1. Customer Oriented
 2. Long term commitment for continuous improvement of all process
 3. Team work
 4. Continuous involvement of top management
 5. Continuous improving at all levels and all areas of responsibility
3. **What do you mean by Total Quality Management?**
TQM is the management approach of an organization, centered on quality, based on me participation of all its members and aiming at long-term success through customer satisfaction. and benefits to all members of me organization and to society.
4. **What is PDCA cycle?**
. It is also called as Deming Cycle or Deming Wheel. Developed by Walter A. Shewart and popularized by Edward Deming.
PLAN • Identify the problem, plan and opportunities • Observe and analyze • Isolate the real causes • Determine corrective actions
DO • Prepare • Apply • Check application
STUDY / CHECK • Check results • Compare with goals
ACT • Standardize and consolidate • Prepare next stage of planning.
5. **What are the pillars of TQM?**
The four pillars of TQM are:
 1. Problem solving discipline
 2. Interpersonal skills
 3. Teamwork and
 4. Quality improvement process
6. **What are the six basic concepts that a successful TQM programme requires?**
The six basic concepts that a successful TQM programme requires
 1. Top management commitment
 2. Focus on the customer
 3. Effective employee involvement
 4. Continuous improvement
 5. Treating suppliers as partners and
 6. Establishing performance measures.
7. **What are the three components of the Juran Trilogy?**
The three components of the Juran Trilogy are i. Planning ii. Control iii. Improvement www.studentsfocus.com
8. **List the dimensions of quality.**
The dimensions of quality are
 1. Performance
 2. Futures
 3. Conformance
 4. Reliability
 5. Durability
 6. Service
 7. Response
 8. Aesthetics and
 9. Repetition
9. **Give the Objectives of TQM?**
 - a. To develop a conceptual understanding of the basic principles and methods associated with TQM;
 - b. To develop an understanding of how these principles and methods have been put into effect in a variety of organizations;


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

- c. To develop an understanding of the relationship between TQM principles and the theories and models studied in traditional management;
- d. To do the right things, right the first time, every time.
10. What does a typical meeting agenda contain after establishing the TQM?
- Progress report on teams
 - Customer satisfaction report
 - Progress on meeting goals
 - New project teams
 - Recognition dinner
 - Benchmarking report

PART B

(Answer all the Questions 3 x 10 = 30 Marks)

11. a) Discuss the various dimensions of product quality in detail.

TQM is an enhancement to the traditional way of doing business. It is the art of managing the whole to achieve excellence. It is defined both a philosophy and a set of guiding principles that represent the foundation of a continuously improving organization. It is the application of quantitative methods and human resources to improve all the processes within an organization and exceed customer needs now and in the future. It integrates fundamental management techniques, existing improvement efforts, and technical tools under a disciplined approach.

The dimensions of quality are;

1. Performance
2. Futures
3. Conformance
4. Reliability
5. Durability
6. Service
7. Response
8. Aesthetics and
9. Repetition.

- b) Explain in detail the basic concepts and principles of TQM

BASIC CONCEPTS OF TQM:

1. Top management commitment
2. Focus on the customer – Both internal and external
3. Effective involvement and utilization of entire work force
4. Continuous improvement
5. Treating suppliers as partners
6. Establishing performance measures for the processes

PRINCIPLES OF TQM:

1. Customers requirements - (both internal & external) must be met first time & every time
2. Everybody must be involved
3. Regular two way communication must be promoted
4. Identify the training needs and supply it to the employees
5. Top management commitment is must
6. Every job must add value
7. Eliminate waste & reduce total cost
8. Promote creativity
9. Focus on team work.

12. a) Explain in detail Deming's 14 points.

DEMING PHILOSOPHY

1. Create and publish the aims and purpose of the organization
2. Learn the new philosophy
3. Understand the purpose of inspection
4. Stop awarding business based on price alone


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

5. Improve constantly and forever the system
6. Institute training
7. Teach and Institute leadership
8. Drive out fear and create a climate for innovation
9. Optimize the efforts of teams.. Groups and staff areas
10. Eliminate exhortations for the work force
11. Eliminate numerical quotas for the work force
12. Remove barriers that rob people of pride of workmanship
13. Encourage education and self improvement for every one
14. Take action to accomplish the transformation.

b) . What does a typical meeting agenda contain after establishing the TQM?

- Progress report on teams
- Customer satisfaction report
- Progress on meeting goals
- New project teams
- Recognition dinner
- Benchmarking report

3. a) Write about tangible and intangible benefits of TQM.

Tangible Benefits

- Improved product quality
- Improved productivity
- Reduced quality cost
- Increased market and customers
- Increased profitability
- Reduced employee grievances

Intangible Benefits

- Improved employee participation
- Improved teamwork
- Improved working relationships
- Improved customer satisfaction
- Improved communication
- Enhancement of job interest
- Enhanced problem solving capacity
- Better company image

b). Enumerate the steps necessary to implement the Quality Management System?

The steps necessary to implement the Quality Management System are

- i. Senior management commitment
- ii. Appoint the management representative
- iii. Awareness
- iv. Appoint an implementation team
- v. Training
- vi. Time schedule
- vii. Select element owners
- viii. Review the present system
- ix. Write the documents
- x. Install the new system
- xi. Internal audit
- xii. Management review



Dr. G. Balakrishnan, M.E., Ph.D.,

Principal

Indra Ganesan College of Engineering


IG Valley, Madurai Main Road


Manikandam, Trichy-620 012.

INDRA GANESAN COLLEGE OF ENGINEERING


IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 622 012, India
(Approved by AICTE, New Delhi and affiliated to Anna University, Chennai)

Internal Assessment Test Answer Book

Name	Deepika . P.L		Year/ Semester	I/I	
Batch No.	811219631010	Date/Session	24-10-19/FN	Department	MBA
Course code	BA5107	Course Title	Total Quality Management.		
Internal Assessment Test	IAT 1	<input checked="" type="checkbox"/>	IAT 2	<input type="checkbox"/>	IAT 3 <input type="checkbox"/> Model <input type="checkbox"/>
Name and Signature of the Invigilator with date			 24/10/19.		

Instruction to the Student: Put tick mark to the question attended in the column against question.							
Part A			Part B / Part C				
Q. No.	✓	Marks	Q. NO.	✓	a	b	Total Marks
					Marks	Marks	
1		1	11			8	8
2		2	12		9		9
3		0	13			8	8
4		2	14				
5		2	15				
6		2	16				
7		2	Total				25
8		2	42.			 Name and Signature of the Examiner with date 25/10/19.	
9		2					
10		2					
Total		17					

To be filled by the examiner							
Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	50						50
Marks Obtained	42.						42.
IQAC Audit - Remarks							Name and Signature of the IQAC member


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering,
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.



INDRA GANESAN COLLEGE OF ENGINEERING
IG VALLEY, MANIDANDAM, TIRUCHIRAPPALLI – 620012
DEPARTMENT OF MANAGEMENT STUDIES
2019 – 2020 (ODD SEMESTER)
STUDENTS MARK STATEMENT- CO BASED
INTERNAL ASSESSMENT - I

SUBJECT CODE & TITLE: BA5107 & Total Quality Management

YEAR/SEM: I/I

MONTH & YEAR: October & 2019

S.NO	REG NO	STUDENT NAME	CO107.1 (IA1)	TOTAL (50)	TOTAL (100)
1.	811219631001	AARTHI V	31	31	62
2.	811219631002	AJITH P	30	30	60
3.	811219631003	ANITHA V	39	39	78
4.	811219631004	ANJU S	37	37	74
5.	811219631005	ARUL PRASATH V	35	35	70
6.	811219631006	ARUN K	36	36	72
7.	811219631007	ARUNSOOSAI V	41	41	82
8.	811219631008	BALAMURALI K	32	32	64
9.	811219631009	CHELLADURAI S	21	21	42
10.	811219631010	DEEPIKA PL	42	42	84
11.	811219631011	GANESAN K	34	34	68
12.	811219631012	GOWSALYA K	43	43	86
13.	811219631013	GOWSALYA R	AB	AB	AB
14.	811219631014	JAYAKALA S	40	40	80
15.	811219631015	JAYASURYA M	42	42	84
16.	811219631016	KAMALAM R	35	35	70
17.	811219631017	KEERTHIKA V	29	29	58
18.	811219631018	LAWRA FRANCINA F	38	38	76
19.	811219631019	MALINI V	34	34	68
20.	811219631020	PADMAPRIYA S	39	39	78
21.	811219631021	PARVATHI K	44	44	88


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

22.	811219631022	PERUMAL D	33	33	66
23.	811219631023	PON SIVA S	32	32	64
24.	811219631024	PRASANTH M	27	27	54
25.	811219631026	RAJALAKSHMI P	35	35	70
26.	811219631027	RAJA RAJA CHOLAN R	34	34	68
27.	811219631028	RAMESH R	AB	AB	AB
28.	811219631029	RAVICHANDRAN R	31	31	62
29.	811219631030	SANTHANAM M	26	26	52
30.	811219631031	SANGEETHA D	39	39	78
31.	811219631032	SAM SUNDAR M	23	23	46
32.	811219631033	SARANYA K	41	41	82
33.	811219631034	SOWMIYA M	42	42	84
34.	811219631035	SUSMITHA M	40	40	80
35.	811219631036	TAMIL ELAKKIYA S	39	39	78
36.	811219631037	VIMAL KUMAR J	35	35	70

MARKS RANGE:

<20	20-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
0	0	0	2	4	12	9	7	0

Total No. of Candidates Present	34
Total No. of Candidates Absent	2
Total No. of Students Pass	32
Total No. of Students Fail	2
Percentage of Pass	89%

[Signature]
STAFF IN CHARGE

[Signature]
HoD/MBA

[Signature]
PRINCIPAL

[Signature]
Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

INDRA GANESAN COLLEGE OF ENGINEERING
 IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu - 620 012, India
 (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)
DEPARTMENT OF MANAGEMENT STUDIES

ROOT CAUSE ANALYSIS

Name of the Faculty : Mrs.N.Minipriya
 Degree & Program : MBA
 IA Test : 1
 Target : 97 %
 Course Code & Name : BAS107 & Total Quality Management
 Semester : I
 Exam/Month & Year : Oct / 2019
 Achieved : 94 %

S.NO	BATCH NO	NAME OF THE STUDENT	CAUSES FOR FAILURE	CORRECTIVE ACTION TAKEN	PREVENTIVE ACTION TAKEN
1.	811219681009	Chelladurai . S	Slow learner.	Retest.	Coaching class
2.	811219631032	Sam Sundar . M	Irregular Attendance	Inform to Parents	Coaching class
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Minipriya
 Signature of the Faculty/Member

B. Tejan
 Signature of the HoD/MBA

Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012



Indra Ganesan
COLLEGE OF ENGINEERING
(Approved by AICTE & Affiliated to Anna University, Chennai)

DEPARTMENT OF MANAGEMENT STUDIES

I - MBA / INTERNAL ASSESSMENT RETEST - I

Date	Session / Time	Subjects Code / Name
28.10.2019	FN / 11.00 to 12.30	BA5101 - ECONOMIC ANALYSIS FOR BUSINESS
	AN / 02.00 to 03.30	BA5102 - PRINCIPLES OF MANAGEMENT
29.10.2019	FN / 11.00 to 12.30	BA5103 - ACCOUNTING FOR MANAGEMENT
	AN / 02.00 to 03.30	BA5104 - LEGAL ASPECTS OF BUSINESS
30.10.2019	FN / 11.00 to 12.30	BA5105 - ORGANIZATIONAL BEHAVIOUR
	AN / 02.00 to 03.30	BA5106 - STATISTICS FOR MANAGEMENT
31.10.2019	FN / 11.00 to 12.30	BA5107 - TOTAL QUALITY MANAGEMENT

B. Theer
HoD / MBA

[Signature]
PRINCIPAL

[Signature]
Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

INDRA GANESAN COLLEGE OF ENGINEERING

IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 622 012, India
(Approved by AICTE, New Delhi and affiliated to Anna University, Chennai)

Internal Assessment Retest Answer Book

Name	Chelladurai . S			Year/ Semester	VI
Batch No.	81121631009	Date/Session	31/10/2019	Department	MBA
Course code	BA5109	Course Title	Total Quality Management		
Internal Assessment Test	IAT 1 <input checked="" type="checkbox"/>	IAT 2 <input type="checkbox"/>	IAT 3 <input type="checkbox"/>	Model	<input type="checkbox"/>
Name and Signature of the Invigilator with date				S. A. [Signature] 31/10/19.	

Instruction to the Student: Put tick mark to the question attended in the column against question.

Part A			Part B / Part C				Total Marks
Q. No.	✓	Marks	Q. NO.	✓	a	b	
					Marks	Marks	
1		1	11		6		6
2		0	12		7		7
3		1	13			6	6
4		2	14				
5		0	15				
6		0	16				
7		1				Total	19.
8		1				27	Name and Signature [Signature] 31/10/19 of the Examiner with date
9		1					
10		1					
Total		8	Grand Total				

To be filled by the examiner							
Course Outcomes	1	2	3	4	5	6	Total
Marks allotted	60						50
Marks Obtained	27						27.
IQAC Audit - Remarks							Name and Signature of the IQAC member

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.



INDRA GANESAN COLLEGE OF ENGINEERING
IG VALLEY, MANIDANDAM, TIRUCHIRAPPALLI - 620012
DEPARTMENT OF MANAGEMENT STUDIES 2019 - 2020 (ODD SEMESTER)
STUDENTS MARK STATEMENT- CO BASED

INTERNAL ASSESSMENT-I

SUBJECT CODE & TITLE: BA5107 & Total Quality Management

YEAR/SEM: I/I

MONTH & YEAR: Oct & 2019


S.NO	REG NO	STUDENT NAME	CO107.1 (IA1)	TOTAL (50)	TOTAL (100)
1.	811219631009	chelladurai . S	27	27	54
2.	811219631013	Growsalya . R	38	38	76
3.	811219631028	Ramesh . R	37	37	74
4.	811219631032	abamsundar . M	28	28	56
5.					
6.					
7.					
8.					
9.					
10.					

MARKS RANGE:


<20	20-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
0	0	0	0	2	-	2	-	-

Total No. of Candidates Present	4
Total No. of Candidates Absent	0
Total No. of Students Pass	4
Total No. of Students Fail	0
Percentage of Pass	100%


STAFF INCHARGE


HoD/MBA


PRINCIPAL


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.



INDRA GANESAN COLLEGE OF ENGINEERING

IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 620 012, India
(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

IQAC Academic Audit Form

ACADEMIC YEAR: 2019-2020 ODD SEMESTER

Name of Department : MBA Year / Sem / Sec : 1 / I No. of Students Registered : 36

Details of Examination : IA Test -1 / IA Test -2 / IA Test -3 / Model Test

S.No.	Course Code	List of Reg.No Verified	Log Book Verified	Course File Verified (Y/N)	No of students Attended	No of Absentees	No of Failures	Pass %	Remarks
1	BA5101	811219631003	Y	Y	35	1	1	94	
2	BA5102	811219631014	Y	Y	34	2	1	92	
3	BA5103	811219631029	Y	Y	35	1	2	92	
4	BA5104	811219631023	Y	Y	34	2	1	92	
5	BA5105	811219631036	Y	Y	35	1	2	92	
6	BA5106	811219631008	Y	Y	35	1	1	94	
7	BA5107	811219631021	Y	Y	34	2	2	89	
8									

Verified by

External Member Name and Signature:

Internal Member Name and Signature:

Overall Remarks:

B. Theer
HoD/ MBA

IQAC Co-ordinator

Principal

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

INDRA GANESAN COLLEGE OF ENGINEERING
 IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu - 620 012, India
 (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

STUDENT FEEDBACK ON FACULTY

THEORY COURSE

ACADEMIC YEAR: 2019-2020 ODD SEMESTER

Faculty Name: Mrs.N.Maladhy

MBA Year / Sem: 1 / 1

Subject Code & Name: BAS107 & Total Quality Management

S.No.	QUESTIONS	Excellent	Very Good	Good	Satisfactory	Not Satisfactory	Total	Weightage	Percentage
1.	Delivery of Lectures by Interactive Communication	13	12	8	3	-	3	3	60
2.	Use of Teaching Aids and ICT	12	14	9	1	-	3	3	75%
3.	Level of Preparedness & Knowledge Level	14	10	8	4	-	3	3	100%
4.	Involvement in mentoring and guiding	12	13	7	4	-	1	1	50%
5.	Effective Time management	15	10	9	2	-	-	-	-

B. Theerth
 HoD/ MBA

IQAC Co-ordinator


 Principal

Dr. G. Balakrishnan, M.E., Ph.D.
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.