UNIT I

INTRODUCTION

PART A

1. Define quality. How is quality defined give any two definitions. (Nov/Dec 2011)(NOV DEC 2015

Quality is the totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs.

Q = P/E

Q – Quality

P – Performance

E – Expectations.

It is also defined as the degree of excellence a product or service provides.

According to Deming "It is the predictable degree of uniformity, at low cost and suited to the market". According to Joseph Juran "Quality is fitness for use". According to Philip B. Crosby "Quality is conformance to requirements

2. Define TQM. (Nov/Dec 2013)

Total Quality Management is the management approach of an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society

The Simple Objective of TQM

"Do the right things, right the first time, every time."

3. What are the basic concepts that a successful TQM programme requires

(Nov/Dec 2013)

- Top management commitment
- Focus on the customer
- Effective employee involvement
- Continuous improvement
- Treating suppliers as partners
- Establishing performance measures

4. Mention any four principles of TQM.(Nov/Dec 2009)

- Customers requirements must be first time ,every time
- Everybody must be involved from all levels and across all functions
- Top management"s participation and commitment is must
- A culture of continuous improvement must be established

5. What are the pillars of TQM?(Nov/Dec 2008)

- Problem solving discipline
- Interpersonal skills
- Team work‟
- Quality improvement process

6.What is meant by customer retention? (Nov/Dec 2012)

Customer retention is the process of retaining the existing customers.

Importance:

- Over 60% of an organization‟s future revenue will come from existing customers
- A 2 % increase in customer retention has an equivalent impact upon profitability as a 10 % reduction in operating costs.
- 91% of the unhappy customers will never purchase goods and services from you again
- It costs 5 times as much to attract a new customer as it costs to keep an old one.

7. Define the concept of quality control and Write an example for quality statement.

Quality control is a process by means of which we observe the actual performance and compare it with some standard

Example:”To continuously enrich knowledge base of practitioners in mobility industry and institutions in the service of humanity”-Society of automotive Engineers (SAE)

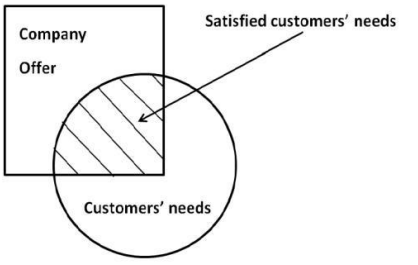
8. What are elements of TQM?(May/June 2013) (AU NOV/DEC- 2014)

Elements of TQM

I.TQM principles and practices	**II.TQM tools and techniques**
1.Leadership	1.Seven tools of quality
2.Customer focus	2.New seven management tools
3.Employment involvement	Six sigma process capability
4.Supplier partnership	4.Benchmarking
5.Continuous process improvement	5.FMEA
6.performance measures	6.QFD
	7.TPM etc

9.What is the relationship between competition and customer focus?

Teboul"s model of customer satisfaction



Customer needs are represented by circle and square represents products or service offered by the company. Intersection portion denotes customer satisfaction. So it is understood that company should strive for increasing the intersection portion

ie, Customer satisfaction.

10.What do you mean by service quality? (May/June 2013)

Service quality also known as the quality of customer service, is the set of activities an organization uses to satisfy the customers and their needs

11.What are the four absolutes of quality observed by crossby? (Nov/Dec 2012) (May/June 2017)

- **First absolute:** The definition of quality is conformance to requirements, not goodness
- **Second absolute:** The system of causing quality is preventive, not appraisal
- **Third absolute:** The performance standard must be zero defects not that"s close enough
- **Fourth absolute:** The measurement of quality is the price of non-conformance, not indexes.

12.What are the advantages of implementing TQM? (Nov/Dec 2014)

Tangible benefits	**Intangible benefits**
Improved product quality Improved productivity Reduced quality costs Increased market and customers Increased profitability Reduced employee grievances	Improved employee participation Improved teamwork Improved working relationships Improved customer satisfaction Improved communication Enhancement of job interest Enhanced problem-solving capacity

13. What are the dimensions of Quality?(AU MAY/JUNE- 2013), (AU NOV/DEC-2013)

The dimensions of Quality are:

1. Performance – Primary product characteristics such as the brightness of the picture.
2. Features – Secondary characteristics, added features, such as remote control.
3. Conformance – Meeting specifications or industry standards.
4. Reliability – Consistency of performance over time, average time for the unit to fail.
5. Durability – Useful life includes repair.
6. Service – Resolution of problems and complaints, ease of repair.
7. Response – Human to human interface, such as the courtesy of the dealer.

14. What are the barriers to TQM ? (AU MAY/JUNE- 2013)

The main barriers to TQM are as follows :

i. Lack of understanding of the TQM concept
ii. Absence of visible support from senior & Top management
iii. Fear of change
iv. Poor internal communication
v. Heavy work loads
vi. Nature of organization
vii. Lack of adequate education & training
viii. Limited resources
ix. Irregularity of the meetings
x. Delay in implementation of the recommendation
xi. Difficulties in evaluation

15. What are the different ways to create customer oriented culture in a industry?(NOV/DEC2016)

Performance
Features
Service
Warranty
Price
Reputation

16. What are the categories of quality cost?(NOV/DEC2016)

Various types of costs associated with Quality are

- Prevention cost
- Appraisal cost
- Internal Failure cost and

PART B

1. Explain the various dimensions of quality with examples (Nov/Dec 2012) (Nov/Dec 2011)(May/June 2013)(NOV/DEC 2016) (May/June 2017)

Depending upon the needs of the customers any product has to be supplied by the manufacturer. However the product should have certain characteristics and features. Customers only determine ultimately whether the product has been of expected quality. Various dimensions of quality that the customers do look for in a product, in order to satisfy their needs, only decide the characteristics of a product.

Two categories:

- Dimensions of product(or manufacturing)quality
- Dimensions of service quality

Dimensions of product Quality:

Quality of product can be evaluated by customers using nine dimensions/aspects of the product.

1. **Performance** – Primary product characteristics such as the brightness of the picture. This is the driving force deciding the operating characteristics.

2. **Features** – Secondary characteristics, added features, such as remote control. Though this attribute is a secondary characteristic, it necessarily supplements the basic functioning of the product.

3. **Conformance** – Meeting specifications or industry standards. How far the products physical and performance characteristic match with the set standards is called conformity.

4. **Reliability** – Consistency of performance over time, average time for the unit to fail. Under prescribed conditions of use of the product the probability of surviving over a specified period is termed as reliability of that product.

5. **Durability** – Useful life includes repair. The quantum of use a customer gets from a product before it wears out beyond further use or when a replacement is essential is called durability.

6. **Service** – Resolution of problems and complaints, ease of repair. The possibility to repair a product quickly and with ease is serviceability.

7. **Response** – Human to human interface, such as the courtesy of the dealer. It refers to the degree they react and act quickly to resolve the problems.

8. **Aesthetics** – Sensory characteristics such as exterior finish. It is the manner in which a product looks feels, tastes or smells.

9. **Reputation** – Past performance and other intangibles, such as being ranked first.

Dimensions of service quality:

Quality of Service is judged by the customers on many dimensions in addition to the physical and functional characteristics associated with the service.

The various aspects or dimensions of service which are found to be very important in determining customer perception of service quality include:

1. Reliability 2. Responsiveness 3. Assurance 4. Empathy 5.Tangibiles 6.other dimensions

1. **Reliability**: Reliability refers to the dependability of the service providers and their ability to keep their promises.

2. **Responsiveness**: Responsiveness refers to the reaction time of the service.

3. **Assurance**: Assurance refers to the level of certainty a customer has regarding the quality of the service provided.

4. **Empathy**: Empathy is being able to understand the needs of the customer as an individual and meet the special requirements of the customer.

5. **Tangibles**: This is the refers to the physical characteristics of facilities, equipments, Consumable goods and personnel used in or associated with the service provided.

6. **Other dimensions**

Time – This is the duration up to which a customer is made to wait.

Timeliness – It refers to whether the promise can be kept or whether the service can be performed as promised.

Courtesy – Whether the front office sales people greet each customer cheerfully and politely.

Consistency – Whether the services are delivered in the same manner for every customer and every time for the same customer.

Accessibility and convenience – Whether the service is easy to get ?or must the customer influence the service provider to get the required service.

Accuracy – This is with regard to whether the service is done correctly even in the first instance.

Responsiveness – Whether the service person reacts and cat quickly to resolve problems.

2.What are the barriers for TQM implementation and how are they overcome? (Nov/Dec 2013) (Nov/Dec 2012)(NOV/DEC2014) (NOV/DEC2015)(NOV/DEC2016)

- Lack of management commitment
- Lack of faith in and support to TQM activities among management personnel
- Failure to appreciate TQM as a cultural revolution. In other words,inability to change organizational culture
- Misunderstanding about the concept of TQM.
- Improper planning
- Lack of employees‟ commitment.
- Lack of effective communication.
- Lack of continuous training and education
- Lack of interest or incompetence of leaders
- Ineffective measurement technique and lack of access to data and results.
- Non-application of proper tools and techniques
- Inadequate use of empowerment and team work
- Inadequate attention to internal and external customers
- Delay or non-implementation of quality improvement team‟s recommendations.

3.Write the fourteen steps of Deming's philosophy for improving quality, productivity and competitiveness April 2013 ,April 2014,May 2015

Deming‟s philosophy is given in his 14 points. Most of these were explained in a seminar for 21 presidents of leading Japanese industry in 1950.

Deming's 14 points on route to quality

1. Create constancy of purpose toward improvement of product and service, with the aim to become competitive and to stay in business, and to provide jobs.

2. Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.

3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.

4. End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust.

5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.

6. Institute training on the job.

7. Institute leadership .The aim of supervision should be to help people and machines and gadgets to do a better job. Supervision of management is in need of overhaul, as well as supervision of production workers.

8. Drive out fear, so that everyone may work effectively for the company

9. Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.

10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of the work force.

- Eliminate work standards (quotas) on the factory floor. Substitute leadership.
- Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.

11. Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.

12. Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means, inter alia, abolishment of the annual or merit rating and of management by objective.

13. Institute a vigorous program of education and self-improvement.

14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

4(a).Discuss the contributions Juran in detail./ (May/June 2012)(NOV/DEC2015)

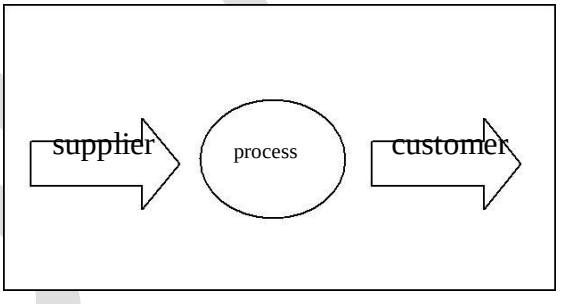
Juran is an American scientist and he was exposed to concepts of shewart , he has published more than 100 papers and 12 books , and emphasizes on the necessity for management at all levels to be committed to quality and its improvement . His contribution towards quality comprise the following aspects.

1. Internal customer
2. Cost of quality
3. Quality trilogy
4. Juran‟s 10 steps for quality improvement;
5. The breakthrough concept

1. Internal customer

Juran realized that the customer was not just the end customer and that each person along the chain has an internal customer. Each person along the chain,from product designer to final user, is a supplier and a customer.

In addition,the person will be a process,carrying out some transformation or activity.Therefore Juran maintained that at each stage was a "three role model":Supplier, process and customer



2.Cost of quality:

Quality costs are defined as those costs associated with the non-achievement of product/service quality as defined by the requirements established by the organization and its contracts with customers and society.

Juran‟s classified the cost of quality into four classes as:

(i)Internal Failure costs: Scrap,rework,corrective actions,

(ii)External Failure Costs: warranty claims,customer complaints and loss of customer.

(iii)Appraisal costs: Inspection, compliance auditing and investigations.

(iv)Prevention costs: Training,preventive auding and process improvement implementation.

3.Juran's quality trilogy:

Juran view as quality as fitness –for-use. He also believes that roughly 80% of quality defects are management controllable. Thus management has the responsibility to correct this deficiency.

Juran divides quality management into three parts. They are given below:

1. Quality planning: Objectives are to determine quality goals; to form implementation planning; to do resource planning; to express goals in quality terms; and to create the quality plan.

2. Quality control: Objectives are to monitor performance; to compare objectives with achievements; and to act to reduce the gap.

3. Quality improvement: Objectives are to reduce waste; to enhance logistics; to improve employee morale; to improve profitability; and to satisfy customers

Juran‟s quality trilogy:

1.Quality Planning

- Identify the customer
- Determine the customer‟s needs
- Develop product features
- Establish quality goods
- Develop a process
- Prove process capability

2.Quality Control

- Choose control subjects
- Choose units of measurement
- Establish measurement
- Establish standards of performance
- Measure actual performance
- Interpret the difference(actual vs. standard)
- Take action on the difference

3.Quality Improvement

- Prove need for improvement
- Identify specific projects for improvement

SCAD

- Organise to guide the projects
- Organise for diagnosis-for discovery of causes
- Diagnose to find the causes
- Provide remedies
- Prove that remedies are effective under the operating conditions
- Provide for control to hold gains

4. **Juran's 10 steps for quality improvement;**
    - Build awareness of need and opportunity for improvement
    - Set goals for improvement
    - Organize to reach your goals
    - Provide training.
    - Carry out projects to solve problems
    - Report progress
    - Give recognition
    - Communicate result.
    - Keep score
    - Maintain momentum by making annual improvement part of the regular process of the company
5. **The breakthrough concept**

    This splits it up into two areas: the journey from symptom to cause and the journey from cause to remedy.

4(b). Define quality. Explain the evolution of quality. (Nov/Dec 2013)

Quality is the totality of features and characteristics of a product or service, that bear on its ability to satisfy stated and implied needs of the customer.

SCAD

Time	Events
	Until 1960s
Prior to the 20th century	Quality is an art Demands overcome potential production An era of Workmanship
F.Taylor 1900s	The scientific approach to management resulting in rationalization of work and its break down leads to greater need for standardization, inspection and Supervision
Shewart 1930s	Statistical beginnings and study of quality control. In parallel, studies by R A Fisher on experimental design; the beginning of control charts at western Electric in USA
Late 1930s	Quality standards and approaches are introduced in France and Japan. Beginning of SQC, reliability and maintenance engineering
1942	Seminal work by Deming at the ministry of war in USA on quality control and sampling. Working group setup by Juran and Dodge on SQC in US army Concepts of acceptance sampling devised
1944	Daodge and Deming carried out seminal research on acceptance Sampling
1945	Founding of the Japan standard association
1946	Founding of the ASQC (American Society for Quality Council)
1950	Visit of Deming in Japan at the invitation of Ishikawa
1951	Quality assurance increasingly accepted
1954	TQC in Japan ; Book published 1956

5(a).Explain the 6 basic concepts of TQM(Nov/Dec 2011)(NOV/DEC 2015) Write down the underlying principles of TQM. (NOV/DEC2016)

Top management commitment

Top management should participate and completely involve in the total quality programme. They should ensure their complete commitment to the approach through management meetings, company magazines or newsletter. Also, top management should make sure that everybody within the organization from top to bottom is communicated about the TQM programme.

- **Focus on the customer**

Achieving customer satisfaction is the heart of TQM. Customers include both internal and external customers. So focus on the customer is the key for any TQM programme.

- **Effective involvement and utilization of the entire work force**

Total quality recognizes that each person is responsible for the quality of his work and for the work of the group. All persons must be trained in TQM, Statistical Process Control(SPC) and other appropriate quality improvement skills so that they can effectively participate on quality teams.

- **Continuous improvement**

TQM is based on the quest for progress and improvement.TQM belives that there is always a better way of doing things, way to make better use of the company"s total quality resources, a way to be more productive. For this purpose various quality tools and techniques may be used.

- **Treating suppliers as partners**

Since the suppliers influence the company"s quality, therefore a partnering relationship should be developed between management and the suppliers.

- **Establishing performance measures for the processes**

Quantitative data are necessary to measure the continuous quality improvement activity. Therefore performance measures such as uptime, productivity, sales turnover, absenteeism, percent non-conforming, customer satisfaction etc. should be determined for each functional area. These results can be used for further improvement activities.

5(b). Write about quality statement (May /June 2013)

Quality statements:

Quality statements are established by the quality council to provide overall direction for achieveing the total quality culture.

Three elements of quality statements are: **(2 marks)(Nov/Dec 2013)**

1. Vision statements
2. Mission statement
3. Quality policy statement

1. Vision statement:

- The vision statement is a short declaration of what an organization aspires to be tomorrow.
- The vision should be coined in such a way that the leaders and the employees working in the organization should work towards the achievements of the vision statement.
- A well-written vision statement, regardless of the type of organization, has the following characteristics:
  - Is easily understood by all stakeholders
  - Is briefly stated, yet clear and comprehensive in meaning
  - Is challenging, yet attainable etc..

Example:"to be the leading customer battery company in the world"- Duracell International

2. Mission statement:

The Mission statement is usually one paragraph, describes the function of the organization. It provides a clear statement of purpose for employees, customers and suppliers.

Key elements of a mission statement:

- Obligation to stakeholders: The most important stakeholder and the relative emphasis placed on meeting the needs of various stakeholders.
- Scope of the business: The areas in which the company will compete defined by the customers served, the functions provided, and the technology employed.
- Sources of competitive advantage: The skills that the company will develop/leverage to achieve its vision and a description of how the company

intends to exceed in creating customer value and competitive advantage

- View of the future: The anticipated regulatory, competitive and economic environment in which the company must compete.

Example:"We exist to create. make, and market useful products and services to satisfy the needs of the customer throughout the world"-Texas Instruments.

3. Quality policy statement:

The quality policy is a guide for everyone in the organization as to how they provide products and service to the customers.

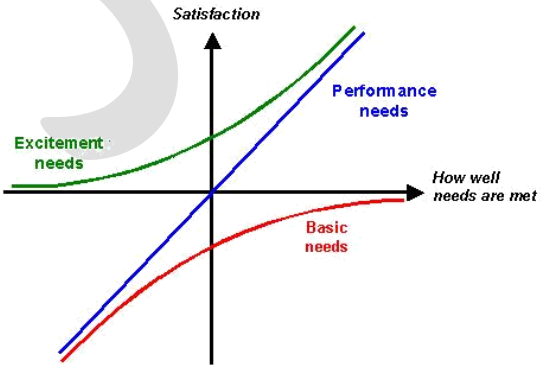
- A quality policy is an important requirement of ISO 9000 quality systems.ISO 9000,the international standard for quality for quality assurance, requires a quality policy as a declaration of intent to meet the needs of the customers.

6(a).Briefly discuss on customer satisfaction. Also explain customer perception of quality.

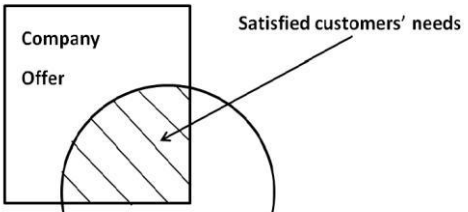
What is service quality. Explain its various elements towards customer satisfication. (NOV/DEC2014) (NOV/DEC 2016) (May/June 2017)

The purpose of TQM"s purpose is meeting or exceeding customer exceptions, so that the customers are delighted. It is understood that the customer satisfaction must be the primary goal of any organization. Therefore it is essential that every employee in the organization understands the important of the customer.

Customer Satisfaction model:



Customer needs are represented by circle and square represents products or service offered by the company. Intersection portion denotes customer satisfaction. so It is understood that company should strive for increasing the intersection portion ie, Customer satisfaction.



Teboul‟s model of customer satisfaction

Kano Model of customer satisfaction (understanding customer needs)

- It is useful to understand customer needs.
- The kano model of customer satisfaction classifies product attributes based on how they are perceived by customers and their effect on customer satisfaction.
- The kano model is useful for:
  - Identifying customer needs
  - Determining functional requirements
  - Concept development
  - Analyzing competitive product

Customer perception of quality:

Quality is what customer perceives it to be. As the customer go on changing their needs, the quality level needs are to be improved continuously to meet the customers demand.

An American Society for Quality (ASQ) survey ranked the customer perception in the following order:

1. Performance 2.Features 3.Service 4.Warranty 5.Price 6.Reputation

1. Performance: It indicates that the product and services is ready for the customers‟ use at the time of sale.

2. Features: Secondary characteristics of the product or services.

Example: The primary of cell phone is for communication whereas other facilities such as calculator, alarm are features of the cell phone

3. Service: Customer service is intangible in nature. Objective of an organization is to provide good quality to the customer at the right time, even though they are not complaining about their service.

4. Warranty: It is public promise of a quality product.

5. Price: Nowadays customer is willing to pay a higher price to obtain value. Also customers expect high quality products at the lowest price. Customer evaluating all the organization.

6. Reputation: Customers are willing to buy products or service from known and trusted and reputed organization.

6(b).What is the various methods/tools used for collecting customer complaints?

Customer complaints:

A customer compliant may be defined as an expression of dissatisfaction with a

product/service, either orally or in writing, from an internal or external customer.

Why customer complaints?

- To discover customer dissatisfaction
- To identify customer needs
- To discover relative priorities of quality etc.

1. Customer complaints related to products:
   - Product is defective
   - Product did not meet the basic requirements etc.
     - Service department responding to the problem
     - Speed of response to a compliant call etc.

Common Customer Feedback Collection Tools

(Tools used for collecting Customer complaints)

1. Comment cards
2. Customer questionnaire
3. Post-transaction surveys
4. Report (feedback) cards
5. Focus groups
6. Social media
7. Toll free telephone numbers
8. Customer visits
9. Employee feedback

1. Comment cards

Comment cards are normally attached, to the warranty card, issued with the product at the time of sales. It is completed later and mailed back.

2. Customer questionnaire

A customer questionnaire, also known as a survey, is a more effective and also a popular tool for obtaining opinions and perceptions about organization ads its product and services.

Survey include:

Survey through
mail Survey
through E-mail
Survey through

telephone

Particularly online, phone and mail survey are most frequently used methods to collect customer feedback.

Types of online surveys:

E-mail: Survey is emailed to customer, either as a link to a web based survey, or questions are included in the body of the email.

Pop-up:"pop ups" are request for feedback after a visitor has landed on company website.

Website: a link on company website to a survey often used to gather feedback on website or web-based interaction.

3. Post-transaction surveys

Post-transaction surveys are conducted immediately after a customer service interaction and usually provide feedback directly on that interaction.

4. Report (feedback) cards:

Report cards, like comment cards are physical, paper cards or forms with one or more survey questions designed to collect customer feedback.

5. Focus groups

Focus groups are moderated, small group discussions where a pre-selected group of individual (often customers) provides insight into their preferences, attitudes and opinions about products or services.

6. Social media

Social media such social networks, online communities, blogs, forums or discussions boards, can be used to collect customer feedback.

7. Toll free telephone numbers

Toll free telephone numbers are an effective tool for receiveing customer feedback/compliant.

8. Customer visits

Visits to customer place of business is an another technique for gathering information and feedback of the product.

9. Employee feedback

Employee feedback is also potential source of information.

7. Explain the various types of costs contributing to the cost of quality. Give examples for each.(May/June 2012)

Definition: Quality costs are defined as those costs associated with the non-achievement of product/service quality as defined by the requirements established by the organization and its contracts with customers and society.

Quality cost is the cost of poor products or services.

Example of quality costs:

Retesting computer chip that was tested incorrectly

Elements of Quality costs:

The American Society for Quality Control (ASQC) divides quality costs into four **categories:**

1. Costs of prevention
2. Costs of appraisal
3. Costs of internal failure
4. Costs of external failure

1.Costs of prevention:

Prevention costs are the costs that occur when a company is performing activities designed to prevent quality problems from arising in products or services.

Prevention costs relate to efforts to prevent failures. It includes:

- Cost of quality planning: It includes the costs associated with creating an overall quality plan ,cost of market research and product ,inspection plan ,reliability plan.
- Cost of documenting: It includes cost of preparation of required documents such as manuals, procedures, policies etc.
- Process control cost: It the cost associated with implementing the quality plans and procedures to achieve the stand purpose.
- Cost of training: It includes the costs of conducting training programmes
- Costs associated with preventing recurring defects: It is the engineering,technical and supervisory costs for preventing the reoccurring defects.
- Costs of investigation ,analysis and correction of causes of defects by quality control and engineering departments.

2.Costs of appraisal

Appraisal cost associated with measuring, evaluating or auditing products or service to ensure that they conform to specifications or requirements. Appraisal costs relate to testing, execution and examination to assess whether specified quality is being maintained.

It includes:

- Cost of receiving test and inspection
- Cost of laboratory acceptance testing
- Cost f installation testing
- Cost of installation and commissioning
- Cost of analysis of reporting of tests and inspection results.
- Cost of line quality engineering
- Cost of vendor rejects.

3. Costs of internal failure:

Internal failure costs arise due to internal failures. These costs are linked to correcting mistakes before delivery of the products, such as: scrap, rework, remaking, reinsertion, retesting and also sales discounts for inferior products. Internal failure costs are costs associated with product non-conformities (service failures) found before the product is shipped to the customer.

It includes:

- Cost associated with scrap and rejects
- Cost of repair and rework
- Cost of design changes
- Cost of trouble –shooting or defect failure analysis
- Cost of re-inspection and retesting
- Cost of sales discounts for inferior products.
- Cost of downgrading
- Cost of downtime.

4.Costs of external failure

External failure costs arise from the rejection of products and service by the customer due to poor quality. The external failure costs are tests that occur when non-conforming product or services reaches the customer. These costs are associated with the adjustments of malfunctions after delivery of the product, such as: repair costs, travel and

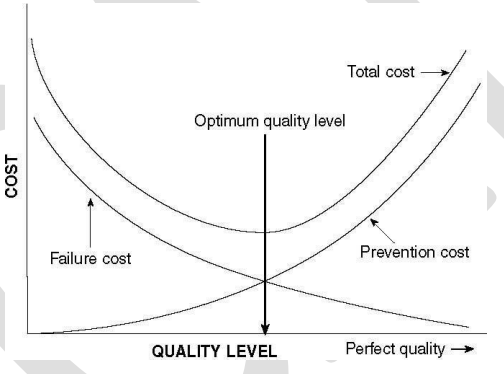
lodging expenses, replacement costs, stock spare parts etc.

It includes:

- Cost of processing complaints from customers
- costs of commissioning failures
- Cost of servicing or replacing the detective items
- Cost of guarantee and warranty claims
- Cost of lost goodwill of customer
- Cost of product reliability compensation
- Cost of loss of sales

Hidden costs, also known as the intangible costs ,are the costa associated with providing a non-conforming product or service to a customer that are difficult to identify and quantify.

Optimum Quality costs (Economic model for quality costs)



The model shows the curves:

- **Cost of internal and external failures curves**: These costs are equal to zero when the product is 100 % good and equal to infinity when the product is 100 % defective
- Costs of appraisal plus prevention curve: These costs are equal to zero when the product is 100% defective and rise as perfection is approached.

UNIT II

TQM PRINCIPLES

PART A

1.What do you mean by strategic planning?(NOV/DEC 2015)

Strategic planning sets the long-term direction of the organization in which it wants to proceed in future.

2.What is meant by reactive and proactive behavior?

Proactive behavior: According to behavioural theory of motivation, people would get motivated to work for recognition and reward. They have a like for work

Reactive behavior: Some people have a dislike for work .Punishment only motivate the people

3.What are the conditions necessary for empowerment?

- Everyone must understand the need for change
- The system needs to change to the new paradigm
- The organization must provide information, education and still to its employees.

4.List four common barriers to team progress. (Nov/Dec 2011) (Nov/Dec 2010)

Insufficient training, incompatible rewards and compensation, lack of planning and lack of management support.

5.What is performance appraisal and what is the use of performance appraisal?(May/June 2006)

Performance appraisal is a systematic and objective assessment or evaluation of performance and contribution of an individual.

Uses:

- To identify employees for salary revision, promotion, transfer, demotion and lay-off
- To provide useful feedback to the employees and allow them to take corrective measures to improve performance further.

6.What is 5S's and list its benefits. (May/June 2012)(Nov/Dec 2013)

The 5S practice is a house keeping technique used to establish and maintain a productive and quality environment in an organization.

SEIRI, SEITON, SEISO, SEIKETSU and SHITSUKE

Benefits:

- Work place become clean and better organized

- Results in good company image and generates more business
- Shop floor and office operations become easier and safer.
- Contribute to productivity ,quality and employee morale

7. Explain supplier selection.(Nov/Dec 2008)

Suppliers are selected based on their performance in terms of cost, quality and delivery reliability

8. List the characteristics of successful quality leaders.(May/June 2013)

- The customers first
- Value people
- Build supplier partnership
- Empower people
- Demonstrate involvement/commitment
- Strive for excellence
- Explain and deploy policy
- Improve communication
- Promote teamwork
- Benchmark continuously
- Establish system
- Encourage collaboration

9. List out any four benefits of employee involvement.

- Employee involvement is the backbone of a TQM movement
- An effective TQM effort requires the total involvement from person at all levels in the organization
- Employee involvement leads to meet the organization goals and objectives
- It also improves the quality and productivity at all levels of the organization.

10. What are the important habits of quality leader? (Nov/Dec 2011)
What are the traits of successful leaders? (NOV/DEC 2015)

Be proactive, Begin with the end in mind, Put first things first, Think win/win, seek first to understand..Then to be understand, synergies, sharpen the saw

11. What do you understand by "supplier rating"?(May/June 2015) (NOV/DEC 2016)

A supplier rating system, also referred as a scorecard system, is used to obtain an overall rating of supplier performance.

12. List the benefits of team work.(May/June 2015) (May/June 2017)

Teamwork is the cumulative action of the team during which each member of the team subordinates his individual interest and opinions to fulfill the objectives or goals of the group

- Enhanced performance
- Employee benefits
- Reduced costs
- Organization enhancements
- Increase reliability
- Increase productivity
- Employee loyalty

13.What is supplier partnering? (Nov/Dec 2014)(MAY/JUNE2013)

Supplier partnering is defined as a continuing relationship, between a buying firm and supplying firm, involving a commitment over an extended time period, an exchange of information and acknowledgement of risks and rewards of the relationship

14. What is meant by customer retention? (Nov/Dec 2014)

Customer retention is the most difficult job an organization is to undertake. Any organization can not dispense with this, because it is the root of business improvement. Customer retention is more powerful and effective than customer satisfaction. Customer satisfaction surveys , interviews with customers and quick redressal of their grievance must be undertaken as important activities by any organization. In fact customer retention is the connection between customer satisfaction and the so called bottom line.

15. List the key elements of supplier partnering.(MAY/JUN 2013)

The three key elements for partnering partnering are

1. Long term commitment
2. Trust
3. Shared Vision

16. How employee involvement can be improved in an organization? (NOV/DEC 2016)

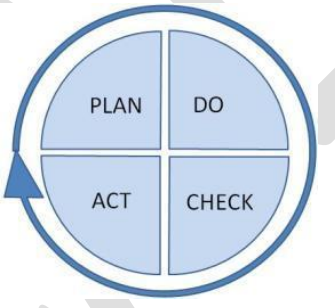
Recognition is a form of employee motivation in which the organization openly acknowledges the positive contribution an individual or team has made to the success of the organization. It may be either in oral or writing praising the deserving

employee by presenting certificates or members .they may also be rewarded by cash awards. Reward is something tangible such as cash award to promote desirable behaviour. Reward can be delayed but recognition cannot be delayed & should be on a timely basis.

PART B

1. **Explain the phases of PDSA cycle with suitable illustration (Nov/Dec 2013) (May/June 2013) (Nov/Dec 2012) (Nov/Dec 2010) (Nov/Dec 2011) (NOV/DEC 2016)**

PDCA is otherwise known as Deming Cycle or Deming Wheel. It is an effective continuous improvement technique. Deming encouraged a systematic approach to problem solving and promoted the widely known Plan, Do, Check, Act(PDCA) cycle. The PDCA cycle is also known as Deming cycle or Deming wheel.



PLAN	What is needed
DO	It
CHECK	That it works
ACT	To correct problems or improve performance

It can be used to test ideas for improvement quickly and easily based on existing ideas, research, feedback, theory, review audit etc..

It encourages starting with small changes, which can build into large improvements in the service through successive quick cycles of change.

It is a universal improvement methodology ,the idea is to constantly improve and thereby reduce the difference between the requirements of the customer and the performance of the process

Phases of PDSA cycle:

Phases	Description
Plan	□ Define the problem □ Analysis the causes and draft an action plan for solving the problem □ Determine the quality objectives and the critical factors □ Define the performance indicators □ Collect and analyze the necessary process data. □ Generate possible solutions □ Select the most feasible solution and work it out.
Do	□ First implement the plan on a limited scale or conduct an experiment to test the proposed improvement. Collection of data is essential □ Train all involved employees in the use of quality improvement methods and techniques □ Describe the process which is considered in the use of quality improvement methods and techniques
Check	□ Evaluate the trail project with theperformance indicators □ Verify whether the improvement has been successful or not
Act	□ Act to implement proven improvements.The choices are;introduce the plan,adjust or reject it □ The improvements are documented in standard procedures so all employees are well-informed on how to handle the feature.

BENEFITS OF PDSA CYCLE

- Daily routine management for the individual and or the team
- Problem solving process
- Project management
- Continuous development
- Vendor development
- Human resource management
- New product development
- Process trials

2.What is meant by strategic planning? Narrate the seven steps procedure of strategic planning cycle. (May/June 2013)(NOV/DEC 2016)

Strategic planning can be defined as the process of deciding on objectives of the organization, on the resource used to attain these objectives and on the polices that are to govern the acquisition, use and disposition of these resources.

Seven steps procedure of strategic planning cycle:

Step 1: Identification of customer needs

The basic steps are the Identification of customer needs and their wants. An organization must seek its customer‟s requirements, expectations and assess future trends before developing a strategic plan

Step 2: Determination of customer positioning

The second requires the planners to determine its positioning with regards to its customers. Various alternatives such as whether the organization should give up, maintain or expand market position should be considered. In order to become successful, the organization should concentrate and consolidate its position in its areas of excellence.

Step 3: Predict the future

The planners must predict future conditions that will affect their product or service. To help predicting the future, the tools such as demographics, economic forecasts, and technical assessments or projections may be used.

Step 4: Gap analysis

The planners must identify the gaps between the current state and the future state of the organization. This is also known as value stream mapping. for identifying the gaps, an

analysis of the core values and concepts and other techniques.

Step 5: Closing the gap

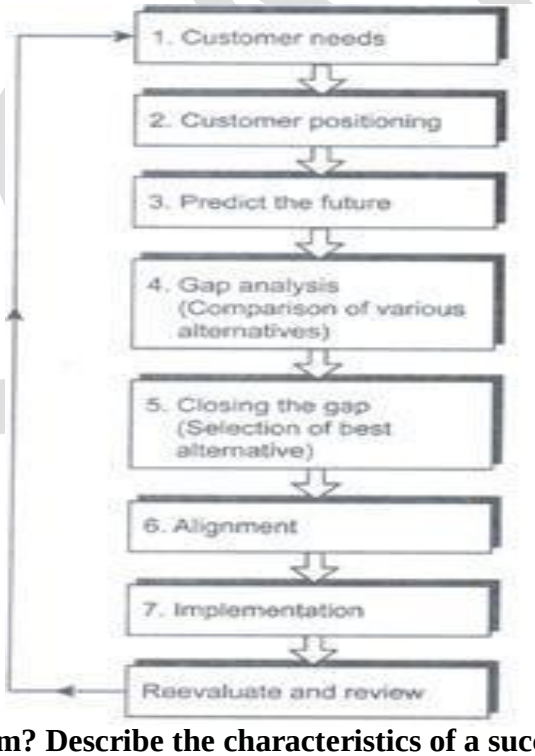
Now the planners should develop a specific plan to close the plan. This is also termed as process improvement. By assessing the relative importance and relative difficulty of each gap, planners can close the gap.

Step 6: Align the plan with the mission and vision

Now the revised plan should be aligned with the mission and vision and core values and concepts of the organization. Organization should embrace quality as an essential ingredient in their vision, mission and objectives.

Step 7: Implementation of the plan

In order to implement the action plan, resources must be allocated to collecting data, designing changes and overcoming resistance to change. Also the planners should monitor and assess the result of the strategic plan.



3(a). What is a team? Describe the characteristics of a successful team (Nov/Dec 2013)(May/June 2014)(Nov/Dec 2014) (May/June 2013)/(Nov/Dec 2012)

A team can be defined as a group of people working together to achieve common objectives or goals Team work is the cumulative actions of the team during which each member of the team subordinates his individual interest and opinions for the fulfilling of objectives of the group.

CHARACTERISTICS OF SUCCESSFUL TEAMS

1**. Sponsor:** In order to have effective liaison with quality council, there should be sponsor. The sponsor is a person from the quality council; he is to provide support to the organization

2**. Team Charter:** A team charter is a document that defines the team,,s mission boundaries, the background of the problem, the team,,s authority and duties and resources. It also identifies the members and their assigned roles – leader, recorder, time keeper and facilitator.

3. Team Composition: Not exceeding 10 members except natural work team and self managed teams. Teams should be diverse by having members with different skills, perspectives and potential

4. Training: The team members should be trained in the problem solving techniques team dynamics and communication skills

5. Ground Rules: The team should have separate rules of operation and conduct. Ground rules should be discussed with the members, whenever needed it should be reviewed and revised

6. Clear objectives :The objective of the team should be stated clearly. Without the clear objective, the team functions are not to be effective.

7. Accountability: Periodic status report should be submitted to quality council for review.

8. Well defined decision procedure: The decision should be made clearly at the right time by the team.

9. Resources: Adequate information should be provided to the team whenever needed.

10. Trust by the management: Management must trust the team to perform the task effectively. They must trust the members and belief each other.

11. Effective problems solving: Problems solving methods is used to make effective decisions.

12. Open communication: Open communication should be encouraged ie, everyone feels free to speak in the team whatever they are thinking , without any interruptions.

13. Appropriate Leadership: Leader is important in every team. Leader is a person who leads the team, motivate the team and guides the team in a proper direction.

14. Balanced participation: Everyone in the team should involve in team activities by voicing their opinions, lending their knowledge and encouraging other members to take part.

15. Cohesiveness: Members should be comfortable in working with each other and act as a single unit, not as individuals or group.

3(b). Discuss different types of team and stages of team development

TYPES OF TEAMS

Process improvement team: Involved in improvement of sub processes or processes. Usually has 6-10 members. Disbanded when the objective is reached. May include the local supplied and customer depending on the location

Cross functional teams: 6-10 members temporary team. Members are Top management level from various functional areas of management. Discuss complex problems and break down into smaller parts to refer it to various departmental teams for further solution.

Natural work teams: Not voluntary and the total work unit is part of the team. Manager also a part of the team and the management selects the projects to be improved. Managers must also ensure that the entire team is comfortable with each other.

Self directed / self managed work team: Extension of natural work teams but here the group of individuals is empowered not only to do work but manage it. No manger will present but a coordinator (Which will be normally rotated among members) will be appointed.

STAGES OF TEAM DEVELOPMENT

• **Forming stage**- Initial stage with only group of individuals and no team work. Team purpose, roles are created.

• **Storming Stage** -Initial agreement roles are challenged. Hostilities, emerge which may be resolved

• **Norming Stage-**Formal informal relations get established.

• **Performing Stage** -Team operates in a successful manner with trust, openness, healthy conflict and decisiveness among the members.

• **Maintenance stage** – Functioning should not deteriorate with time Evaluating Stage – Evaluating team performance

4.What is 5S?Explain all the elements of 5S principle in detail(nov/dec 2010)

(japanese 5-s practice)

This is a house keeping technique used to establish and maintain a productive and quality environment in an organization. This method is invented in Japan which will give safer, more efficient and more productive operation results in boosting the morale of workers, job involvement and satisfaction and ownership of their responsibilities.

Japanese Term	**English Equivalent**	**Meaning**
SEIRI	Sorting out	Cleaning – Throw away all rubbish unrelated materials in the work place
SEITON	Systematic arrangement(Straighten)	Arranging – Set everything in proper place for quick retrieval and storage
SEISO	Spic and span(scrub ,shrine, sweep)	Sweeping – Clean the work place, every thing with out fail
SEIKETSU	Standardizing	Maintaining Cleanliness – Standardizing the way of maintaining cleanliness
SHISUKE	Self-discipline(sustain)	Self Discipline – Practice 5S,, daily. Make it a way or life. This also means commitment

OBJECTIVES OF 5S

- Create a neat and clean work place

- Create systemize day to day working
- Improve work efficiency
- Standardize work practice
- Improve work discipline
- Improve the quality of work and products

SEIRI: SORTING

It denotes to identify and sort out all items into necessary and unnecessary items and discard all unnecessary items.

SEITON: SYSTEMATIZE

It means to arrange everything in proper order so that it can be easily picked up for use. A place for everything and everything in its place.

SEISO: SHINE

It means to clean the workplace thoroughly so that there is no dust/dirt/scrap anywhere.

SEIKETSU: STANDARDISE

It means maintaining a high standard of workplace organization and house keepinh at all times.

SHISUKESELF-DISCIPLINE

- It denotes self-discipline ,especially with regard to safety rules and punctuality
- 5S means everything in its place. People must also be in their place, at the right time, in the right attire.
- It is management duty to train people to practice 5S with discipline ,to acquire the habit and to keep it.

BENEFITS IN IMPLEMENTING 5S

- Work place becomes proud place to work
- Results in good image and- generates business
- Operations become easier and safer in work place
- Disciplined people

5. What are seven habits of highly effective people? Discuss in detail. (May/June 2014)

Habit 1: Be Proactive

Being proactive means taking responsibility for your life-the ability to choose the response to situation. You can't keep blaming everything on your parents or grandparents.

Proactive people recognize that they are "response-able." They don't blame genetics, circumstances, conditions, or conditioning for their behavior. They know they choose their behavior.

Reactive people, on the other hand, are often affected by their physical environment. They find external sources to blame for their behavior. If the weather is good, they feel good. If it isn't, it affects their attitude and performance, and they blame the weather. All of these external forces act as stimuli that we respond to.

A proactive person uses proactive language--I can, I will, I prefer, etc.

A reactive person uses reactive language--I can't, I have to, if only.

- Reactive people believe they are not responsible for what they say and do--they have no choice.
- Instead of reacting to or worrying about conditions over which they have little or no control, proactive people focus their time and energy on things they can control. The problems, challenges, and opportunities we face fall into two areas-- Circle of Concern and Circle of Influence.
- Proactive people focus their efforts on their Circle of Influence. They work on the things they can do something about: health, children, problems at work. Reactive people focus their efforts in the Circle of Concern--things over which they have little or no control: the national debt, terrorism, the weather. Gaining an awareness of the areas in which we expend our energies in is a giant step in becoming proactive.

Habit 2: Begin with the End In Mind

- Habit 2 is based on imagination--the ability to envision in your mind what you cannot at present see with your eyes.
- It is based on the principle that all things are created twice. There is a mental (first) creation, and a physical (second) creation.

- The physical creation follows the mental, just as a building follows a blueprint. If you don't make a conscious effort to visualize who you are and what you want in life, then you empower other people and circumstances to shape you and your life by default.
- It's about connecting again with your own uniqueness and then defining the personal, moral, and ethical guidelines within which you can most happily express and fulfill yourself.
- Begin with the End in Mind means to begin each day, task, or project with a clear vision of your desired direction and destination, and then continue by flexing your proactive muscles to make things happen.

Habit 3: Put First Things First

Habit 1 says, "You're in charge. You're the creator." Being proactive is about choice. Habit 2 is the first, or mental, creation. Beginning with the End in Mind is about vision. Habit 3 is the second creation, the physical creation. This habit is where Habits 1 and 2 come together. It happens day in and day out, moment-by-moment. It deals with many of the questions addressed in the field of time management. But that's not all it's about. Habit 3 is about life management as well--your purpose, values, roles, and priorities

	Urgent	Not Urgent
Important	1. Necessity - Reduce Tasks that need your immediate attention. Reactive 'fire-fighting'	2. Quality - Increase Habitual, proactive actions that reduce quadrant 1.
Not Important	3. Deception - Manage Things that *appear* to be worth doing.	4. Waste - Avoid Time wasting activities

Habit 4: Think Win-Win

- Win –Win is a frame of mind and heart that constantly seeks mutual benefit in all human interactions. Both sides come out ahead; in fact the end result is usually a better way. If Win-win is not possible, and then the alternative is no deal. It takes great courage as well as consideration to create mutual benefits, especially if the other party is thinking Win-Lose.

- Win-Win embraces five independent dimensions of life-character, relationships, agreements, systems and processes. Character involves: integrity and maturity which is a balance between being considerate of others and the courage to express feelings.

Habit 5: Seek First To Understand, Then To Be Understood

- Empathic Listening is the key to effective communication. It focuses on listening how the other person sees the world. Empathic Listening is not that you agree with someone; it‟s that you fully, deeply understand that person, emotionally as well as intellectually.
- The second of the habit is to be understood. Covey uses three sequentially arranged Greek word: Ethos, pathos and logos. Ethos is your personal character, pathos is the empathy you have with the other person‟s communication and logos is the logic or reasoning part of your presentation.

Habit 6: Synergize

Synergy means whole is greater than the parts. To put it simply, synergy means "two heads are better than one." Synergize is the habit of creative cooperation. It is teamwork, open-mindedness, and the adventure of finding new solutions to old problems. But it doesn't just happen on its own. It's a process, and through that process, people bring all their personal experience and expertise to the table. Together, they can produce far better results that they could individually. Synergy lets us discover jointly things we are much less likely to discover by ourselves.

Habit 7: Sharpen the Saw

Habit 7 is taking time to sharpen the saw so it will cut faster.

Sharpen the Saw means preserving and enhancing the greatest asset you have-- you. It means having a balanced program for self-renewal in the four areas of your life: physical, social/emotional, mental, and spiritual. Here are some examples of activities:

Physical:	Beneficial eating, exercising, and resting
Social/Emotional:	Making social and meaningful connections with others
Mental:	Learning, reading, writing, and teaching
Spiritual:	Spending time in nature, expanding spiritual self through meditation, music, art, prayer, or service

6.a .Briefly explain employee motivation with its theories (nov/dec 2009)

Employee motivation

- Motivation means a process of stimulating people to accomplish desired goals.
- Motivation is the process of attempting to influence others to do your will through the possibility of reward.

Importance of motivation

- Motivation improves employee involvement
- Motivation promotes job satisfaction and thus reduce absenteeism and turnover
- Motivation helps in securing high level of performance and hhence enchance efficiency and productivity.

Theories of motivation:

a)Maslow's need hierarchy theory

One of the most widely mentioned theories of motivation is the hierarchy of needs theory put forth by psychologist Abraham Maslow. Maslow saw human needs in the form of a hierarchy, ascending from the lowest to the highest, and he concluded that when one set of needs is satisfied, this kind of need ceases to be a motivator.

As per his theory these needs are:

(i) Physiological needs:

These are important needs for sustaining the human life. Food, water, warmth, shelter, sleep, medicine and education are the basic physiological needs which fall in the primary list of need satisfaction. Maslow was of an opinion that until these needs were satisfied to a degree to maintain life, no other motivating factors can work.

(ii) Security or Safety needs:

These are the needs to be free of physical danger (fire,accident) and of the fear of losing a job, property, food or shelter. It also includes protection against any emotional harm.

(iii) Social needs:

Since people are social beings, they need to belong and be accepted by others. People try to satisfy their need for affection, acceptance and friendship.

(iv) Esteem needs:

According to Maslow, once people begin to satisfy their need to belong, they tend to want to be held in esteem both by themselves and by others. This kind of need produces such satisfaction as power, prestige status and self-confidence. It includes both internal esteem factors like self-respect, autonomy and achievements and external esteem factors such as states, recognition and attention.

(v) Need for self-actualization:

Maslow regards this as the highest need in his hierarchy. It is the drive to become what one is capable of becoming; it includes growth, achieving one‟s potential and self-fulfillment. It is to maximize one‟s potential and to accomplish something.

b) <u>Herzberg's motivation-hygiene theory:</u>

Herzberg‟s studies concentrated on satisfaction at work. 200 engineers and accountants were asked to recall when they had experienced satisfactory and unsatisfactory feelings about their jobs.

Common motivators or satisfiers

- Achievement
- Recognition
- Advancement
- Personal growth
- The work it self
- Challenging work

Common dissatisfies:

- Salary
- Working conditions
- Company policy and administration
- Job security
- Status
- Interpersonal relationship

According to Herzberg's, maintenance or hygiene factors are necessary to maintain a reasonable level of satisfaction among employees. These factors do not provide satisfaction among employees but their absence will dissatisfy them. Therefore these factors are called dissatisfies.

Motivational factors create satisfaction to the workers at the presence but their absence does not cause dissatisfaction.

6.b.Portray the characteristics of empowered employees. (NOV/DEC 2016)

` Empowerment is an environment in which people have the ability , the confidence and the commitment to take the responsibility and ownership to improve the process and initiate the necessary steps to satisfy customer requirements within well defined boundaries in order to achieve organizational values and goals.

The word empowerment is not to be confused with delegation or job enrichment.Delegation is distribution and entrusting work to others.Employee empowerment requires the individual to be held responsible for accomplishing a whole task.Besides the employee by having been empowered becomes accountable for the work.The following conditions are necessary for employee empowerment.

1.Everyone must understand the need for the change.
2.The system needs to change to create a new scenario.
3.The organization must enable its employees.

People fear change that is why the resist change.Change is always considered as something impost on them without their full concern.The organization needs an effective communication with their employees.They should be convinced that the change would benefit them.Change in the system is a must to reinforce and motivate the individual and group accompolishment.Enabling the employees means providing information,education and skill.People want normally want to be more incharge of their jobs and carreers.Many appreciate the value of trust and responsibility in an environment supporting people and their actions**.**

7.What is supplier partnering? Indicate its important benefits.(NOV/DEC 2016)(MAY/JUN 2013)

Successful supplier partnerships require commitment and continual nurturing. The following points as mandatory requirements of supplier partnerships;

Ø Supplier personnel should meet with buyer personnel beyond those in the purchasing office. It is particularly important for them to meet with personnel who actually use their products so that needed improvements can be identified and made.

- Ø The price-only approach to buyer –supplier negotiations should be eliminated. Product features, quality, and delivery concerns should also be part of the negotiations. The goal of the negotiations should be to achieve the optimum deal when price, feature, quality, and delivery issues are all factored in.
- Ø The quality of supplier products should be guaranteed by the supplier's quality processes. The buyer should have no need to inspect the supplier's products.
- Ø Both partners should be capable of sharing information electronically so that the relationship is not inhibited by paperwork. Electronic data exchange is particularly important for successful Just in Time (JIT).
- Ø The supplier should fully understand and be able to practice just-in time (JIT). Buyers should not need to maintain inventories.

ROLE OF SUPPLIER PARTNERSHIP

1. Timeliness

The suppliers should ensured that they deliver the required inputs on time while in return the customer (organization) should pay for the supplied inputs on time hence saving time and creating a good relationship.

2. Information

The customer (organization) is responsible for providing the supplier with clear and sufficient information of requirements so that the supplier can know precisely what to produce. Both the customer and the supplier should continually exchange information, sometimes using multifunctional teams, in order to improve the product and service quality.

3. Product evaluation

Both the customer (organization) and the supplier should decide the method to evaluate the quality of the products or services to the satisfaction of both parties. This will enhance their relationship which may lead to better provision of services to organization's customers.

4. Monitor customer complaints

When dealing with business transactions, both the customer and the supplier should always have the best interest of the end user in mind. Having a complaints handling system in place will help you pick up on any adverse incidents and trends relating to your products. For example, the Australian Standard AS/ISO 10002:2006 *Customer Satisfaction—Guidelines for complaints handling in organizations* provides advice on the complaints handling process, including planning, design, operation, maintenance and improvement.

5. Awareness of product liability laws

Both customer and supplier should ensure that their products comply with the safety standards. If end user suffer serious injury or death from problems with your products, you and your business could be liable under the product liability provisions of the Consumer Law or at common law.

6. Ensure necessary tests are done

Many products need testing to ensure they are safe and free of faults and consistently meet any mandatory standards that apply. If you are supplying products covered by mandatory standards or bans, every item must comply. If you claim that all your goods comply, you must be able to support this with evidence. Having an effective compliance program helps you to gather this evidence.

7. Provide dependable products

In supplier partnership it's the role of the supplier to ensure the quality and reliability of the products they supply. The supplier must be reliable at all time. The quality of the products should not be compromised hence quality improvement.

8. Anticipate changing needs and acting on them

The customer (Organization) should be aware of changing needs of the end user and therefore adjust accordingly. On the other hand, the supplier should adjust according the needs of the consumer.

9. Commitment

Long-term commitment to the partnership provides the needed environment for both parties to work towards continuous satisfaction of end users needs. Each party contributes its unique strengths to the process hence product quality improvement.

10. Compliance with mandatory standards

Any products subject to mandatory product safety regulations must comply before you can sell them. Mandatory standards and bans are law. For instance, In Kenya the products should bear the Diamond Standardization mark of Quality from Kenya Bureau of Standards (KEBS).

11. Communication

Any arising needs in product by the management should be communicated to the supplier on time. This will ensure that no delays are experienced on both parties which could lead to inefficiencies and delays in production therefore compromising quality. Suppliers that do not maintain a policy of open communication- or even worse, actively practice deception- should be avoided at all costs.

12. Plan ahead for recalls

A company that has a set of recall roles and procedures in place will save time and money, and will help protect their reputation, in the event that a recall is necessary. It is in everybody's interests to act quickly and surely to remove unsafe products as soon as they have been found.

SCAD