Due to overproduction, the company:-

- Loses money
- Gains money
- Maintains flow of money
- Uses money effectively

Types of meetings held in DWM are :-

- Daily PDCA meeting
- Weekly PDCA meeting
- Monthly PDCA meeting
- Yearly PDCA meeting

The results oriented efforts of the quality circle should also include:-

- Efforts to avoid the problem permanently
- Ultimate aim of the customers' satisfaction
- Publication or advertisement of your contribution
- Attacking the real root causes & all possibilities

In a scatter diagram, a **Curvilinear relationship** is said to exist when there is positive relationship up to a certain level & negative thereafter or negative relationship up to a certain level & positive thereafter.

- Strong negative
- Strong positive
- No

What are the limitations of quality circles?

- Problems headed by worker group must be simple & within their limit
- Unions in India are reluctant
- Management is also not open for union
- Workers want only financial benefits
Control chart should be used to exercise control on the process.

100% inspection

Patrol inspection

Latest checking instruments

For what is a Scatter diagram used?

☐ To discover the relationship between two associated sets of data

☐ To display the relationship between two variables

☐ To confirm the anticipated relationship between two variables / associated sets of data

☐ To find the out properties of two variables

Kaizen is an excellent method to involve Employees to unearth & eliminate hidden waste.

Employers

Customers

Competitors

The Japanese concept of good house keeping is for:

☐ Creating good impression to visitors

☒ Good environment for quality products

☐ For reducing waste

☐ To impress the top management

TQM improves the quality by improving processes.

☒ TRUE

☐ FALSE
Types of Poka-Yoke are:

- Prevention type Poka-Yoke
- Detection type Poka-Yoke
- Standards type Poka-Yoke
- Expected type Poka-Yoke

Fishbone analysis is used both in analysis & planning.

- TRUE
- FALSE

Mechanization & Discipline are the two constituents of streamlining.

- Improvement
- Separation
- 5 'S'

Quality circle should include employees of Lower levels who are not usually considered capable of contributing.

- Non-Technical
- Inexperienced
- Middle level

Procedure for implementation of TPM consists of 12 numbers of steps.

- 8
- 22
- 20

New benchmarking projects are initiated after reviewing competitive position periodically.

- TRUE
- FALSE
Frequencies and values tabulated in the frequency table, can be represented pictorially in the form of bar graph. This graph of frequency is called

- Line graph
- Pareto diagram
- Bar graph
- **Histogram**

Worker must do cleaning & preventive inspection & lubrication of his machine.

Worker | Sweeper
---|---
Worker | Maintenance person
Worker | Inspection department person

While preparing a scatter diagram, what are the following precautions to be taken?

- [ ] Data should be properly stratified & collected for full range
- [ ] Scale selected should be right, to avoid wrong conclusions
- [ ] Data should be free from bias or undue importance
- [ ] Irrelevant factors to be noted

Quality improvement team consists of a departmental head, with a chairperson who has easy access to the

Top management: Engineers
Supervisors: Workmen
Work standards enable management to minimize variation in:

- Output
- Quality
- Cost
- Opinions

In P-chart, the value of P can never be negative.

The Steering committee is responsible for effective implementation of action plans under TPM.

- The Maintenance department
- All employers
- A Consultant

The Flow chart helps to stop an old process.

- TRUE
- FALSE

Ford, General Electric & Motorola are world class benchmarking for:

- Training
- Environmental management
- Warehousing & distribution
- Billing & collection
TPM implementation is done through:

- Small group
- Big group
- Individual
- Managers

For customer satisfaction, checking point will be:

- Obtaining feedback from the concerned department
- Obtaining feedback from the management
- Obtaining feedback from the suppliers
- Obtaining feedback from the employees

Flow charts are drawn to identify deviations by observing actual & comparing with running process.

- TRUE
- FALSE

When is a flow chart required?

- When trying to improve the process
- At the time of review of the process
- For understanding the steps in a process by pictorial presentation
- For finding defects in the products
For 'Analysis of non conformance', the checking point will be:

- Finding out root cause and taking corrective & preventive action
- 100% inspection
- Finding out root cause only
- Recording non conformance

What does TPM mean?

- Total Productive Maintenance
- Team Performance Management
- Team Productivity Management
- Total Programmed Management

Number of kaizen in Group kaizen categories are:

- Two to three per year
- As many as management decides
- Many
- Only one

A Pie chart is also called as an angular diagram.

- TRUE
- FALSE

World class benchmarking candidate in 'Quality' is

- Motorola
- IBM
- American Express
- DOW chemical

Empowerment means making best use of the firm's most valuable resource, namely:

- Human
- Machine
- Material
- Money
According to SeiKetsu, what does Standardization mean?

- Develop easy to follow standards
- Evolve standard operating procedures
- Reduce wastage
- Better visual management

It is essential to convey customers expectations to the

- Top Management
- Employees
- Maintenance department
- Supervisors & workmen

Flow charts are drawn to identify deviations by observing actual and

- Comparing with specified process
- Comparing with documented process
- Comparing with required process
- Comparing with running process

Management skill includes:

- Leadership
- Motivation
- Performance appraisals
- Quality measurement

Creating as many visual controls as possible to achieve visual management is the principle of "Shitsuke".

- TRUE
- FALSE

A Flow chart is drawn to document a process, charting the tasks performed & the sequence in which the tasks are performed.

- TRUE
- FALSE
The Steering committee as apex body should be:

- One committee per subject
- One for two or three groups
- Only one for all the groups in organization
- Quality control department persons

Benefits of Quality maintenance are:

- Reduction in customer quality complaints
- Reduction in inspection time
- Reduction in productivity
- Reduction in quality standards

Along with problem solving tools, experience and judgment is also used.

- TRUE
- FALSE

When is a Flow chart prepared?

- When defining the problem
- When trying to know the activities involved in the process
- When identifying the root causes
- When trying to put information in a pie chart
Internal customer satisfaction is essential for external customer satisfaction.

- TRUE
- FALSE

Machine malfunction is
- An unexpected error
- Trivial
- Judgemental
- Wilful

Lower control limits for control chart (X-R) chart is:
- X - A2 R
- X R
- X - A1 R
- X + A1 R

Statistical process control is application of statistical technique to control:
- Process
- Product
- Project
- People

Quality is the responsibility of:
- Everyone in the organization
- Quality department
- Operators
- Supervisors

Flow charts are drawn to identify deviations by observing actual and comparing with running process.

**Control charts by attributes are used for:**
- Damages
- Scratches
- Blemishes
- Length

**Actions that can be thought for the process having process capability is smaller than specification tolerance are:**
- Use of less precision machine
- Possibility of squeezing tolerances
- Reduction in inspection
- 100% inspection

**Few main steps to construct a Histogram are:**
- Collect & tabulate data
- Compute range (i.e., maximum value - minimum value)
- Decide the number of classes & class width & cell (class) boundaries
- Plot a line graph

**Up gradation of existing pollution control equipment is related to:**
- Pollution Control
- Safety
- Predictive maintenance
- Autonomous maintenance

**Finding the root cause is part of PDCA cycle:**
- Plan
- Do
- Act

**Vittorio Pareto had discovered a universal law as:**
- "around 80% of the activity causes 20% of the effect"
- "around 80% of the activity causes 20% of the effect"
- "around 80% of the activity causes 20% of the effect"
- "around 80% of the activity causes 20% of the effect"

**Only scrapping unwanted items, keeping neatly remaining items is not enough but a definite standardization is must after that as "Situ-Code" says:**
- True
- False
Self job includes:

- Classify items into necessary & unnecessary
- Sort as per own choice
- Retain only those which are required
- Throw away which are not required

Defective materials & defective tooling are causes for MUDA of:

- Defect
- Overproduction
- Stock
- Transport

To maintain market share in competitive market, every organization must:

- Increase line of its product
- Accept low volume orders
- Keep its cost low
- Increase delivery lead time

Scatter diagram is also called as Correlation diagram which is a graphical representation between two variables.

- Pareto diagram
- Fishbone diagram
- Ishikawa diagram

To survive in competitive world, each company must be aware of:

- Its own strengths & weaknesses
- Organizational and technological gaps
- Strength of its competitors
- Fear of success

Pie chart is also called as angular diagram.

- TRUE
- FALSE

5S

Benchmarking
Quality problem solving tool is used to:

- Make work easy
- Improve quality
- Save time
- Save energy

TQM is not applicable for administration department.

TRUE
FALSE

To hold the customer to do business with you:

- Reduce the amount of time, the customer spend till he receive service
- Increase the amount of time, the customer spend till he receive service
- Maintain the amount of time, the customer spend till he receive service
- Increase response time

Additional ware houses

- Muda of transport

Rework and reprocessing

- Muda of defect

Unnecessary split up of operation

- Muda of processing

Low level of delegation

- Muda in office

Muda of over production

Muda of waiting
The cause & effect diagram consists of a main horizontal line to represent the actual problem (effect) & few lines touching main line represents the major causes like:

- Men
- Machine
- Material
- Reasons

**Sensing mechanism is used to:**
- Avoid accident
- Locate component
- Cleanup component
- Load component

**Model circles under TPM activities are for:**
- Autonomous maintenance & office TPM
- Autonomous & planned maintenance
- Breakdown maintenance & office TPM
- Preventive & breakdown maintenance

Shitsuke is most difficult out of all 5 S because it means to sustain all the first 4 S throughout the year.

**TRUE**

**FALSE**

To find out root cause **Why-Why Technique** used
- Poka-yoke
- 5 'S'
- TPM

Production / Procurement against faulty forecast is **Muda of stock**
- Muda of overproduction
- Muda of Transport
- Muda of defect
<table>
<thead>
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<th>Requirement of more machines, is an example of:</th>
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<td>☐ Muda of waiting</td>
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<td>☒ Muda of motion</td>
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<table>
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<td>☐ On reputation</td>
</tr>
<tr>
<td>☐ Randomly</td>
</tr>
<tr>
<td>☐ On market condition</td>
</tr>
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</table>

Examples of management oriented kaizen are:

- Change in plant layout for better efficiency
- Identification & elimination of waste in workers motion
- JIT production
- Improvement in machines & processes

To know the thinking about the company managers & management, a [Management survey] is essential.

- Staff attitude survey
- Customer Survey
- Suppliers Survey

Status with respect to plan / target and trends on productivity, customer complaints, delivery performance will be discussed in:

- Weekly management
- Daily work management meeting
- Monthly meeting
- Shift beginning & shift end / change meeting
Stratification helps to segregate data according to contributory sources (M/c, operator, supplier, etc).

The most effective methods to implement 5S are:

- To attach red tags to all required items
- Discuss with other about doubtful items
- Take your own decision for sorting
- Store wanted items as per frequency of use

TQM can never flourish if the staff are:

- Worried about losing jobs
- Afraid of being reprimanded if there are mistakes
- Scared of their bosses
- Permitted to express their opinion

7 Q.C. Tools are used for problem solving such as:

- Bottleneck operations/Activity
- Complaints from your customers
- Repetitive errors causing rework & rejection
- Better planning process

Cent percent inspection can ensure 100 percent quality.

"Display of safety posture & slogans" is an essential step of TPM.

Which of the following is SPC tool?

- Control chart
- Kanban
- Kaizen
- 5S
Benefits of seton are

- Easy retrievability of material
- Good aesthetics
- Unnecessary purchase is avoided
- Time in searching is avoided

By improving layout MUDA, due to [ ] Motion can be eliminated.

- Over production
- Process
- Storage

Accumulation of obsolete stock which are not disposed off to make balance sheet look black is a cause of:

- MUDA of stock
- MUDA of transport
- MUDA of over production
- MUDA of waiting

Range (R) is obtained as the difference between the highest and [ ] Lowest measurement of a sample.

- Middle
- Mean
- Second highest
Trend of points on control charts show continuous upward pattern indicates:

- Wear of wear
- Wear of threads
- Abnormal rise in temperature
- Frequent adjustment of machines

Control chart are nothing but type of:

- Check sheet
- Bar graph
- Diagram
- Line graph

In 'Kaizen' projects are managed cross functionally.

Communicative benchmarking finding is done after:

- Establishing functional goal
- Deciding action plan
- Implementing plan
- Recycling process

<table>
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<th>$u + 2\sigma$</th>
<th>$u + 3\sigma$</th>
<th>$u + 4\sigma$</th>
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<td>Area enclosed 20%</td>
<td>Area enclosed 60%</td>
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In PDCA for benchmarking 'Data Collection' means:

- Doing
- Planning
- Checking
- Active

For 'Timely clearance of GRR's', checking point will be:

- Number of GRRs pending beyond 1 day
- Number of GRRs Received
- Number of GRRs under process
- Number of GRRs till not received

The flow charts are prepared to enhance the employee's:

- Knowledge of the process
- Understanding of the process by indicating interrelationship with the process
- Ability to know the process
- Capability to know the process

Exercise to identify MURA, MUDA & MURI is not helpful to identify problems.

- TRUE
- FALSE

A steering committee comprising of senior management is headed by:

- The company's top person
- Maintenance department head
- Production head
- TPM consultant

Change of job titles can help to raise employee's morale.

- TRUE
- FALSE
To produce the output as desired by customer, it is essential to test:

- Capability of the process
- Capacity of the process
- Cost of manufacturing
- Cost of design output

Causes of Muda of transport are:

- Faulty layout
- Over production
- Proper material handling equipment
- Low rejection / rework

SMED is applicable to:

- Presses
- Multispindle automates
- Drilling machine
- Furnaces

Customer contact staff need training in areas like:

- Questioning skills
- Listening skills
- Telephone attending techniques
- Process skill

Individual oriented kaizen focus on:

- Improvement in machines & processes
- Improvement in Jigs & fixtures
- Improvement in working environment
- Improvement in productivity

Muda of transport is due to bad housekeeping.
In PDCA cycle for benchmarking, Identification of performance gap is done in **Checking**.

**Planning**

**Acting**

**Doing**

Human error(s) which are commonly responsible for defect "Omitted processing" are:

- [ ] Forgetfulness
- [ ] Willful errors
- [ ] Inadvertent error
- [x] Judgment error

Customer-wise outstanding is discussed in daily work management meeting by operations head.

- [ ] TRUE
- [x] FALSE

Benchmarking allows exchange of **Information** between the benchmarking partners.

- [ ] Product
- [ ] Service
- [ ] Employees

Use of quality problem solving tool **Improves quality**.

- [ ] Makes work easy
- [ ] Saves time
- [ ] Saves energy
The number of defective items in a sample is called:

- np chart
- X-R chart
- P chart
- C-chart

Result for this Assignment

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5 'S' is used for:

- Improving housekeeping
- Improving productivity
- Improving production rate
- Improving machine availability

Ideally, the histogram will have a symmetrical i.e. bell shape:

- Tapering away on both sides from average value
- Tapering away on both sides from specified value
- Tapering away on both sides from central value
- Tapering away on both sides from min and max value
Quality can't be inspected, instead, it has to be built into the product.

Control chart CY variables are basically the following:

- The average chart (X-chart) which measures the central tendency of the process
- The range chart (R-chart) which measures the spread of the process
- The frequency chart
- It is the stability of the process

Ishikawa diagram is also known as:

- Pareto diagram
- Fishbone diagram
- BAR diagram
- Tree diagram

With whom internal benchmarking can be done?

- With the company's own divisions
- With sister companies
- With parent company at abroad
- With competitor

Quality problem implies:

- Gap in performance
- Less productivity
- Lower efficiency
- Not meeting targets

Pareto diagram is a Bar Graph with height or frequency or value drawn by arranging data in descending order.

- Line
- Pie
- Control
A control chart is a chart with UCL & LCL placed at:

- Specified distance on either side of the process average
- Required tolerance on either side of the process average
- 3 Sigma distance on either side of the process average
- 6 Sigma distance on either side of the process average

Advantages of Poka-yoke are:

- Eliminate rejection & rework
- Builds up morale on the shop floor
- Improve productivity of process
- Increase rerouting of job

Financial performance measurement

- Cash saving per department

Staff attitude measurement

- Employee satisfaction index

Customer satisfaction measurement

- Customer complaints per period

Productivity performance measurement

- Sales of the months

Cost of quality

Turnover employee

Trend of points on control charts show a cyclic pattern depicting peaks & valleys indicates the presence of variables like:

- Roller eccentricity
- Fatigue
- Rotation of persons
- Wear of tool
Management has basically two functions namely, maintain the standard & improve the standards.

SPC is based on philosophy ‘Prevention is better than cure’.

- TRUE
- FALSE

Wear & tear of parts while disassembling is an effect due to the muda of defect.

- Set up time reduction
- Poor production planning & control
- Small lot size

Line & staff project teams support management kazen.

- Small Group activities
- QC circles
- Suggestion System
Poor information flow system is symptoms of:

- MUDA in office
- MUDA of waiting
- MUDA of defect
- MUDA of transport

Non-availability of files/document in time is a problem to be addressed by office TPM.

- TRUE
- FALSE

Zero defect vendor is a checking point.

Poka-Yoke:

- Prevent defects
- Provide defects
- Pass defects
- Perform defects
Benefits of Kaizen are:

- Companywide continuous improvement
- Stimulates creativity among company's employee
- Generates process oriented thinking
- Zero inventory

Types of Poka-Yoke are:

- Prevention type Poka-Yoke
- Detection type Poka-Yoke
- Standards type Poka-Yoke
- Expected type Poka-Yoke

Check sheet are also used as:

- Data gathering & interpretation tool
- Defect gathering tool
- Solution gathering & implementation of solution tool
- Cause finding & effect finding tool

Leaders for 8 TPM pillars are:

- Members of steering committee
- Engineer's from maintenance department
- Workers
- Middle management person

Shitsuke is most difficult 8 to implement & achieve.

Suketsu

Seiso

Seiton

Time waste is probably the biggest waste in most of the organizations.

Labor

Capital

Material
Control chart are nothing but type of flowchart.

TRUE
FALSE

Check sheet is easy to use because it is:

- Defect finding
- Influence tree
- Simplest tool
- A proper procedure

Check sheet is easy to use because it is:

- Defect finding
- Influence tree
- Simplest tool
- A proper procedure

Due to TPM, plant and equipment availability:

- Increases
- Decreases
- Is maintained
- Sometimes decrease

Conducting activities in parallel or simultaneously, helps:

- To reduce cycle time
- To increase cycle time
- To reduce activities
- To reduce inspection time

The reduction in time of internal setup tasks can be achieved by following methods:

- Parallel operations
- Use dies with standardized external dimensions
- Provide stops that locates new dies at appropriate spot
- Use manual aids for installation at heavier futures

To project future performance gap:

- Forecasting future performance level of the partners company is essential
- Forecasting future performance level of the partners company is not essential
- Conducting site visit to partners company is essential
- Conducting site visit to partners company is not essential

Remedial actions for forgetfulness type of error are:

- Alerting operator in advance
- Checking at regular intervals
- Verification by another employee
- Attitude change

Improvements problems can be classified into:

- Zero problems
- Decrease problems
- Increase problems
- No problems

Histogram always indicates:

- Percentage defect
- Priority
- Influence
- Only height

Quality problem implies: Less productivity

Lower efficiency

Not meeting targets

Typical examples of decrease problems are those wherein problem solving is intended to reduce its magnitude, for example:

- Minimize cost
- Productivity
- Reduce manufacturing lead time
- Reduce inventory
Following are the steps to draw cause & effect diagram:

- Specify the problem to be solved & brainstorm to find all possible causes of the problem
- Organize/arrange these causes in few major themes/ categories
- Construct a cause & effect diagram that accurately displays the relationship of all data in each category
- Delete irrelevant causes

All the business costs incurred in achieving a quality product or service is called:

- Cost of quality
- Cost of quantity
- Cost of manufacturing
- Cost of design product

Pokayoke for problems of defective delivery due to different addresses on the letter and envelope:

- Put return address in window envelope
- Use same colour for letter & envelope
- Use bold letter to write address
- Use white colour of envelope

Advantages of Pokayoke are:

- Benchmarking applies to process, rather than to product or technology.
- TRUE
- FALSE
New benchmarking projects are initiated after reviewing competitive position periodically.

- TRUE
- FALSE

Globalization of trade and industrial operations have forced Indian companies to become more & more competitive and customer driven.

- TRUE
- FALSE

Length meetings without an agenda's types of problems are analyzed under:

- Office TPM
- Preventive maintenance
- Kaizen
- Poka-Yoka

Management has basically two functions namely, maintain the standard & improve the standards.

- TRUE
- FALSE

Sony is a world-class benchmarking company in product development.

- Coming Inc.
- Proctor & Gamble
- American Express

Result for this Assignment

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<td>Result</td>
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</table>

TQM organizations also harness the goodwill and interest of the family members of the employees.

- TRUE
- FALSE
Fishbone diagram was developed by "Vilfredo Pareto".

Strategies to eliminate MUDA of stock are:
- Dispose of obsolete materials
- Do not produce items ahead of customer requirements
- Procurement in small lots
- Increase manufacturing lead time

Defect found at OWN PROCESS:
- Cost to company is very little
- Cost to company is significant

Defect found at END OF LINE:
- Cost to company is very high
- Cost to company is excessive

Defect found at FINAL INSPECTION:
- Cost to company is zero
- Cost to company is equal to profit

The grand average (x double bar) is the average of the:
- Sample average
- Each sample
- Range
- Mean

For small batch quality production, number of setups:
- Increases
- Decreases
- Remains as it is
- Sometimes decreases

Increase in defect rate is an example of "Deviation from an established norm".

Steps in construction of scatter diagram:
- Collect paired data (X,Y) from two variables whose relationship is to be studied
- Find out max & min values for both X & Y and these values to scale X & Y axes & plot the paired data
- Examine the shape of the cloud of points & discover type & strength of relationship
- Draw the line graph with points

Number of Kaizen projects suggested and implemented is checking point for:
- Continual improvement
- TPM
- 5S
- SPC

If defects found at own process, the cost to the company is:
- Very little
- Significant
- Very high
- Excessive
Benefits of planned maintenance are:

- Improved reliability means time between failures
- Improved maintainability means time to repair
- Improvement in breakdown
- Increase in maintenance cost

Organizing the place is not enough, what is required is:

- Destroying unwanted items completely
- Planning storage based on Frequency of use
- Overall neatness for wanted items
- Overall cleanliness

Management skill includes:

- Leadership
- Motivation
- Performance appraisals
- Quality measurement

The shape of histogram can provide a clue about the limits of the lot.

Histograms are useful to:

- Measure the current pattern & extent of variation
- Assess current performance to specification & scope of improvement
- Determine whether or not the process is in the state of control
- Do the analysis as per Pareto diagram

Root cause analysis is a central tenant of Kaizen.

To reduce Muda of transport, techniques used are:

- Cellular layout
- Method study
- "S" (5S)
- TPM

System designed to help the operator to recognize the defect before it is about to occur is called Preventive type Poka Yoke

Defective type Poka Yoke

TPM

DVM
Kaizen foster better understanding between:

- Workers & management
- Company & competitor
- Workers & union leaders
- Management & supervisors

In Poka-Yoke, poka means:

- Inherent errors
- To avoid errors
- To improve
- Waste

List of customers, to carry out pares analysis to identify customers who gives business includes:

- Present & past customers
- Only past customers
- Only present customers
- Only future customers

An organization exists because of customers.

Daily work management advocates quick but planned review of performance at every activity and work on gaps to

Minimize

the impact of variations.

Maximize

Balance

Maintain

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Name: Mohan B
Attempt: 1
Duration: 09:16:16

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<td>49 OUT OF 50</td>
</tr>
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<td>Passed</td>
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</table>

Cent percent inspection can ensure 100 percent quality.

- TRUE
- FALSE

Individual oriented kaizen focus on:

- Improvement in machines & processes
- Improvement in Jigs & fixtures
- Improvement in working environment
- Improvement in productivity

Examples of good inventory:

- Stocks held to satisfy consumption during procurement lead time
- Stocks held to provide faster delivery to customer
- Stocks held to economies on buying cost
- Company's stock at vendor plant
Time duration for daily work management meeting by operations head is:

- 10-15 minutes
- 15-30 minutes
- 5 minutes
- 2 hrs

TPM promotion secretarial is set up with:

- Full time staff
- Part time staff
- Temporary Staff
- Either part time or temporary staff

Deciding what to benchmark

- Value stream analysis
- Benchmarking

Deciding the benchmarking partner

- Identify gaps in performance

Collecting data

- Conduct site visit

Analyzing data

- Identify functional work
- Standardize practice

As benchmark in Japan sense activities mean:

- Everyone, clerk to officer does cleaning his area
- No sweeper or cleaner employees
- Every family does cleaning of pavement of their residence
- Separate department for cleaning supervision

Elements of cost to the company if defect found at customer end are:

- Warranty cost
- Complaint handling cost
- Loss of market share
- Cost to delay

The shape of histogram can provide a clue about the quality of the lot

- Distribution
- Limits
- Acceptance

Excess inventory does not add any value, but adds to the cost.

Conformance to employee training programme is not checking point for "Employee's development"

- TRUE
- FALSE

Improper operation of the machine is due to:

- Errors at amateurs
- Inadvertent errors
- Unexpected errors
- Forgetfulness

World class benchmarking candidates in "Billing & condition" is:

- American express
- Verizon
- IBM
- Motorola
The most effective methods to implement Seiri are:

- To attach red tags to all required items
- Discuss with others about double items
- Take your own decision for sorting
- Store wanted items as per frequency of use
- TRUE
- FALSE

A TQM company will help staff to acquire:

- People base
- Skills
- Machine base
- Method base
- Material base

To identify/define customers expectations, always send:

- Executives who never visit the customer
- Executive having good relationship
- Executive who visit customer occasionally
- Executive who visit customer frequently

Excellence in Safety covers all those conditions which may cause accident or make the work environment unsafe.

Steering committee is responsible for effective implementation of action plans under TPM.

- Operators
- Measurement
- Maintenance department
- Consultant
- All employers

A steering committee comprising of senior management is headed by:

- The company’s top person
- Maintenance department head
- Production head
- TPM consultant

Percentage of quality problems due to process errors are:

- 0.6
- 0.15
- 0.5
- 1

Storing the necessary stock as per individual requirement is “Seiton” principle.

- TRUE
- FALSE
**Graphs convey a situation more:**

- Effectively & clearly than summary of data or figures
- Correctly than data figures
- Easier than summary of data or figures
- Positively than data or figures

**5S rating after audit is check point for:**

- Workplace improvement
- TPM
- Kanban
- Shingo-Yosei

**Status with respect to plan objectives, plan, target related to financial turnover & capital expenditure are discussed in:**

- Management review meeting
- Management Committee meeting
- Daily work management meeting
- Shift beginning & shiftonal change meeting

**Selection of the benchmarking partner should be made:**

- After thorough research
- On reputation
- Randomly
- On market condition

**To eliminate zero problems, the organization must:**

- Systematically analyze each problem
- Identify underlying root cause
- Collect data about problem
- Analyze each cause & develop counter measures

**Gap analysis & problem identification is done during converting internal setups into external setups in the areas like:**

- Equipment
- Method
- Human
- Customer
Improper operation of the machine is due to:

- Errors at amateurs
- Inadvertent errors
- Unexpected errors
- Forgettingness

Stratification helps to segregate data according to contributory sources (e.g., operator, supplier, etc.).

STRATEGY:

- TRUE
- FALSE
Kaizen foster better understanding between the workers & management.

Paperless work is an example of:

- Office TPM
- Autonomous maintenance
- Kobetsu-Kaizen
- Planned maintenance

TRUE  FALSE

Process capability studies can be used for:

- Establishing desirable inspection method & frequency of inspection
- Identifying need for adjusting machine parameters
- Reducing risk of production of non-conforming products
- Controlling the process

What are the benefits of benchmarking?

- Helps the organization to learn from the experiences of others
- Identifies strength & weakness of the organization
- Identifies undiscovered customers requirement
- Decrease sensitivity to changes in the external environment

Affix identification mark & assign location number for items in store.

Department  Minimum stock  Barcode

Daily PDCA meeting by:

- Departmental head
- Supervisor
- Workers
- Customers

There are five types of check sheets.

Two  Three

Four

Five

5S technique is used for:

- Manufacturing organization
- Servicing shops
- Administrative offices
- To all places including homes

"Cause & effect" diagram was developed by:

- Villfredo Pareto
- Dr. J. M. Juran
- Dr. Kaoru Ishikawa
- M.C. Lorenz

Customer-wise outstanding is discussed in daily work management meeting by operations head.

TRUE  FALSE
Chronic problems of poor quality, bad quality delivery, absenteeism etc. all get hide if inventory is:

- High
- Less
- Zero
- Medium

Production in last shift & production plan for next shift is discussed during:

- Shift beginning & shift end
- Change meeting
- Daily work management meeting
- Weekly meeting
- Monthly meeting

Seiko prevents the potential problems by discovering abnormalities while cleaning your own area.

- TRUE
- FALSE

Poké-Yoke devices which can help to avoid the defects are:

- Guide pins
- Limit switches
- Checklists
- 100% inspection

1st Attempt

Causes of Muda of transport are:

- Faulty layout
- Over production
- Proper material handling equipment
- Low rejection / rework
Elements of standardized work are:

- Time
- Work sequence
- Standard work in progress
- Cost

Defects are not the consequences of human errors.

- TRUE
- FALSE  

To produce the output as desired by customer, it is essential to test:

- Capability of the process
- Capacity of the process
- Cost of manufacturing
- Cost of design output

Pie chart is the graph of:

- Percentage breakdown of data.
- Angular movement of data
- Circular breakdown of data
- Degree measurement of data
Levels of benchmarking are:

- Internal benchmarking
- Competitive benchmarking
- Functional benchmarking
- Product benchmarking
Chronic problems of poor quality, bad quality delivery, absenteeism etc, all gets hide if inventory is:

- High
- Less
- Zero
- Medium

By cutting the cost of quality, profitability decreases.

- TRUE
- FALSE

To eliminate zero problems, the organization must:

- Systematically analyze each problem
- Identify underlying root cause
- Collect data about problem
- Analyze each cause & develop counter measures
Benchmarking is finding exercise.

<table>
<thead>
<tr>
<th>Fact</th>
<th>Problem</th>
</tr>
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<tbody>
<tr>
<td>Cause</td>
<td>Profit</td>
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Cleaning your own area/equipments gives benefits of:

- [ ] You know yourself how to avoid dust
- [ ] When you touch while cleaning you may find a fault
- [ ] Saving of further failure due to dust
- [ ] Utilization of spare time

Seiso means cleaning the workplace, is the responsibility of sweeper or cleaning person.

- [ ] TRUE
- [ ] FALSE

Type of training required to decide Goals of the business market, customers need, etc is related to:

- [ ] Corporate strategy
- [ ] Quality
- [ ] Technical skill
- [ ] Interpersonal skill
Comparison of different features/attribute of firm’s product with those of competitor product involves in:

- Product benchmarking
- Procedure benchmarking
- Performance Benchmarking
- Strategic Benchmarking

BMking 285

Production / Procurement against faulty forecast is

- Muda of stock
- Muda of overproduction
- Muda of transport
- Muda of defect

Seiton means

- Decide place for each item
- Code Nos. for each item
- Place for everything and everything on place
- Documentation of every item

(I think this is the wrong answer)

Delegation is management skill.

- Process knowledge
- Negotiation skill

Quality cost analysis
Functional benchmarking involves comparison of functions within the same industry.

- TRUE
- FALSE

Productivity improvement due to high utilization of machines is possible due to:

- SMED
- 5 'S'
- SPC
- Poka-yoke

Exactness in operations covers:

- Machine condition
- Machine setup
- Tool change
- Measuring methods

Removing job before completing drilling of all holes is:

- Inadvertent
- Judgmental
- Willful
- Unexpected
Poka-yoke is also called as:

- Failsafing
- 5's
- TPM
- MUDA

"Display of safety posture & slogans" is an essential step of TPM.

Score Card
Assessment: Assignment for Techniques for Operations Efficiency-II

Registration Number: 200873717
Name: Abdul Rasheed Khan
Attempt 1
Duration 00:12:56

Result for this Assignment

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While drawing control charts, sample size n=4 to 5 is used to have low:

- Appraisal cost
- Variation cost
- Rejection cost
- Production cost