

Paper Code: M-EPA-IMT3005



Improvement Technician - Mock Multiple Choice Exam

Information for registered centres

The seal on this examination paper must only be broken by the candidate at the time of the examination.

Under no circumstances should a candidate use an unsealed examination paper.

Information for candidates

Under no circumstances should you, the candidate, use an unsealed examination paper.

This examination consists of 40 multiple-choice questions.

The exam is worth 40 marks, with a Pass being 25 marks, Merit 30 marks, and Distinction 36 marks.

ANSWER COMPLETED CORRECTLY

The duration of this examination is 40 minutes.

You are **NOT** allowed any assistance to complete the answers.

You must use a pencil to complete the answer sheet - pens must NOT be used.

When completed, please leave the examination answer sheet (EAS) on the desk.

EXAMINATION ANSWER SHEET (EAS) INSTRUCTIONS:

For each question, fill in ONE answer ONLY.

If you make a mistake, ensure you erase it thoroughly.

You must mark your choice of answer by shading in **ONE** answer circle only.

Please mark each choice like this:

DO NOT partially shade the answer circle
ANSWER COMPLETED INCORRECTLY

DO NOT use ticks or crosses
ANSWER COMPLETED INCORRECTLY

DO NOT use circles
ANSWER COMPLETED INCORRECTLY

ANSWER COMPLETED INCORRECTLY

DO NOT shade over more than one answer circle
ANSWER COMPLETED INCORRECTLY

All candidates **MUST** sign the Examination Answer Sheet (EAS) in the bottom right-hand corner of the page before leaving the examination room.



1

In which of the following scenarios is it appropriate to apply the Plan Do Check Act approach?

- A. A business needs to close an underperforming department
- B. A company wants to test a small change before full implementation
- C. A manager is hiring a new member of staff for the team
- D. An organisation is finalising annual financial statements

2

What is included within the 5 principles of Lean to help reduce waste?

- A. Efficiency
- B. Performance
- C. Push production
- D. Value stream

3

Which of the following approaches helps to address a skill gap that is slowing down the adoption of change?

- A. Assigning additional tasks to current staff roles
- B. Communicating through brief updates in team meetings
- Offering support tailored to the new requirements
- Promoting long-serving staff to leadership positions

4

How does affinity grouping help when dealing with large amounts of information?

- A. It clusters data into categories that simplify complex ideas
- B. It converts data into numerical summaries
- It ensures that only management-approved ideas are reviewed
- D. It filters out ideas that lack supporting evidence

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How does the DMAIC approach support effective problem-solving in Six Sigma?

- A. It encourages staff to rely on instinct and previous experience to solve issues
- B. It promotes quick fixes through informal discussion and temporary solutions
- C. It provides a step-by-step method to identify and address problems at their root
- D. It replaces the need for structured and regimented data collection

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Which of the following is an example of continuous data?

- A. The amount of customer complaints received
- B. The length of time taken to complete a task
- C. The number of defective products in a batch
- D. The number of late deliveries in a week



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What is the **main** purpose of using a histogram in data analysis?

- A. To compare productivity between departments
- To display the relationship between two continuous variables
- C. To show how frequently values occur within specific ranges
- D. To track the sequence of steps within a process

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How does a SIPOC diagram support the early stages of process mapping?

- A. By detailing every staff member's task within a process
- B. By eliminating the need for visual tools in process analysis
- C. By focusing solely on customer satisfaction processes
- D. By offering a high-level overview of the boundaries in a process

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How is discrete data commonly used in monitoring quality?

- A. To capture opinions using free-text comments
- B. To estimate the cost of process delays
- C. To record numerical counts of process failures or defects
- D. To track continuous trends in customer feedback

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A **key** benefit of using a process map during a project is it:

- A. helps scope the project by outlining current steps
- B. limits the number of team members involved in improvement
- C. prevents the need to use customer feedback in the project
- D. replaces the need to document staff training

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What is the main purpose of an operational definition in a process or study?

- A. To allow different teams to interpret the data in their own way
- B. To ensure all stakeholders follow the same process
- C. To give a clear way of measuring or observing a specific concept
- D. To make the results easier to present in a report

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Why must potential risks be evaluated before starting an improvement project?

- A. To decide whether to increase team size and scope before launch
- B. To eliminate all possible objections to the project
- C. To prepare internal communications about the project
- D. To understand possible issues and their effect on success

13

How can coaching help to reduce resistance to organisational change?

- A. By empowering members of staff to contribute
- B. By limiting communication to prevent confusion
- C. By replacing formal training sessions
- D. By suspending performance targets



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Which of the following is a **key** benefit of using active analysis over 'one factor at a time' (OFAT)?

- A. It allows for faster testing of multiple variables at once
- B. It avoids the need for detailed planning or preparation
- C. It reduces the risk of human error in manual experiments
- It simplifies the process by avoiding the use of statistical tools

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What makes continuous data particularly useful for detecting subtle process shifts?

- A. It captures descriptive feedback from members of staff
- B. It converts data into simple categories for faster review
- C. It reduces the volume of data that needs to be analysed
- D. It tracks small changes over time with measurable precision

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How can an organisation ensure that a change becomes part of day-to-day operations?

- A. By adding it to the workflows of relevant staff members
- B. By assigning it as a short-term project to a working group
- C. By including it in team discussions without formalising it
- D. By only communicating it to staff who are directly involved

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How does a scoping tree support effective resource management?

- A. By assigning budgets to each project phase
- B. By estimating the final return on investment
- C. By helping to prioritise efforts based on potential benefits
- D. By measuring the overall team performance across departments

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How does data stratification improve the effectiveness of statistical analysis?

- A. By adjusting measurement tools used across all categories
- B. By averaging and summarising all data into a single summary result
- C. By combining unrelated datasets to maximise insights
- D. By identifying and isolating variation within specific subgroups

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Why is a control chart useful for decision-making?

- A. It helps to track individual staff performance
- B. It identifies shifts or trends that suggest a need for action
- C. It replaces the need for other types of data collection
- D. It shows changes in customer requirements



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How does the confidence level in a sample affect the number of samples needed?

- A. A higher confidence level allows for more flexible sampling methods
- B. A higher confidence level increases the sample size to improve accuracy
- C. A lower confidence level means results are more likely to be unreliable
- D. A lower confidence level reduces the number of samples required

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Why is process-capability analysis **key** for customer satisfaction?

- A. It allows teams to reduce the number of staff on shift at any point
- B. It ensures staff follow the same routine each day
- C. It focuses only on reducing the cost of raw materials
- D. It shows if products or services consistently meet expectations

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Which of the following methods addresses low trust in leadership during a change initiative?

- A. Increasing technical training for frontline staff during the change
- B. Involving staff in the decision-making process
- Pausing performance reviews during the change period
- D. Reassigning staff members to different departments

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Which of the following is a potential consequence of failing to plan data collection effectively?

- A. Analysis of data will be faster but less accurate
- B. Data may be duplicated automatically across systems
- C. Results may be based on incomplete or irrelevant
- D. Staff will focus solely on qualitative data methods

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Which of the following qualities ensures that a process produces consistent results over time?

- A. Adaptability
- B. Resilience
- C. Scalability
- D. Standardisation

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Which of the following is a common outcome of exploratory data analysis when assessing a new dataset?

- A. Confirming the accuracy of previously tested hypotheses
- B. Developing a standardised format for all future data collection
- Identifying irregular patterns that need further investigation
- D. Replacing raw data with predictive models for future use



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Why is it useful to measure both inputs and outputs in a process?

- A. To compare salaries and processes between departments
- B. To ensure everyone agrees on team responsibilities
- To reduce the number of reports that need to be seen by management
- D. To understand what influences the process and what results it produces

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In what way does team building help during periods of change?

- A. It ensures better financial control
- B. It increases compliance with health and safety
- C. It simplifies reporting requirements
- D. It strengthens group trust and co-operation

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Which of the following features is typically associated with a control chart as a control mechanism?

- A. It compares individual staff output against performance reviews
- B. It scores new ideas from recent brainstorming sessions
- It tracks financial data across several departments
- D. It uses visual limits to identify different process behaviours

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Which of the following is a **key** limitation of interim containment actions (ICAs) in the 8D framework?

- A. They make future analysis of a problem more difficult
- B. They only treat the symptoms and do not resolve the root cause
- C. They replace the need for a structured problem-solving method
- D. They require significant time and investment to implement

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Which of the following describes a value-added activity?

- A. A compliance check unrelated to the final product or service
- B. A process step that increases cost but does not affect delivery time
- C. A task required internally but invisible to the customers
- D. An action that directly contributes to meeting customer requirements

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Which of the following skills enables a leader to clearly share their ideas and updates during change initiatives?

- A. Active communication
- B. Emotional control
- C. Financial planning
- D. Technical proficiency



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Why is reducing variation **key** in Six Sigma?

- A. It allows processes to be more flexible and informal
- B. It enables teams to operate independently without co-ordination
- C. It increases variation to handle multiple customer needs
- D. It supports predictable and reliable outcomes to processes

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How does brainstorming support continuous improvement?

- A. By generating ideas that challenge current ways of working
- By introducing standard operating procedures across the team
- C. By replacing formal improvement tools with group discussion
- D. By reviewing previous audit results in heavier detail

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How does a selection matrix help teams to reach better decisions when multiple options are available?

- A. It always chooses the cheapest option without further analysis
- B. It eliminates options automatically based on past results
- C. It ranks options based on the most senior team member's opinion
- D. It scores each option against agreed criteria to compare choices fairly

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What is included in a Service Level Agreement (SLA)?

- A. Service description, service levels and responsibilities
- Service levels, terms and conditions, and payment details
- C. Service milestones, service objectives and timelines
- D. Services provided, conclusion and appendices

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Which of the following data collection methods is appropriate to use when gathering data on how a process is performed?

- A. Asking suppliers to complete a satisfaction form
- B. Direct observation during task completion
- C. Reviewing last year's customer survey results
- D. Sending a company-wide email for opinions

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What aspect of a problem is typically defined within a problem statement?

- A. The gap between the current situation and the desired outcome
- B. The level of risk associated with financial planning
- C. The marketing strategy for communicating project results
- D. The proposed benefits of long-term investment and solutions



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How does the 'one factor at a time' (OFAT) method support decision-making?

- A. It attributes process changes to multiple causes at once
- B. It clearly links individual changes to specific results
- C. It reduces the number of trials needed for full analysis
- D. It simplifies data collection by avoiding control groups

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Under the current Health and Safety at Work etc. Act, all employers must:

- A. provide a secure place to work
- B. provide inclusivity training during induction
- C. provide manual handling training
- D. provide reasonable adjustments for staff

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Why do goal statements typically include a measurable target?

- A. To allow flexible interpretation and implementation of the intended outcome
- B. To avoid limiting creativity when developing solutions to problems
- C. To encourage team members to develop their own improvement methods
- D. To track progress and determine when the objective has been met



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