

Paper Code: M-EPA-IMT3006

Level
3

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**.

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:

01 ☐ A ☐ B ☐ C ☒ **ANSWER COMPLETED CORRECTLY**

Examples of how **NOT** to mark your examination answer sheet (EAS). These will not be recorded.

01 ☐ A ☐ B ☐ C ☐ **DO NOT** partially shade the answer circle
ANSWER COMPLETED INCORRECTLY

01 ☐ A ☐ B ☒ ☒ **DO NOT** use ticks or crosses
ANSWER COMPLETED INCORRECTLY

01 ☐ A ☐ B ☐ C ☐ **DO NOT** use circles
ANSWER COMPLETED INCORRECTLY

01 ☐ A ☐ B ☒ ☒ **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

What role does a SIPOC diagram play in identifying improvement opportunities?

- A. It allows teams to examine key inputs and outputs in a process
- B. It highlights when external suppliers should be replaced
- C. It prioritises improvement actions based on cost and efficiency
- D. It shows the financial results of past process changes

2

Which of the following statements is an accurate comparison of active analysis to 'one factor at a time' (OFAT)?

- A. Active analysis avoids statistical methods, while OFAT uses regression tools
- B. Active analysis can test multiple variables together, while OFAT isolates each variable
- C. Active analysis changes one variable at a time, while OFAT changes all variables simultaneously
- D. Active analysis tests fewer variables overall, while OFAT uses more complex designs

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One expected benefit of following customer compliance requirements is:

- A. absenteeism and staff turnover are reduced to acceptable levels
- B. business processes are more efficient and unnecessary costs are eliminated
- C. clearer standards and measures to assist with management of operations
- D. receiving more positive comments and fewer staff complaints

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Which of the following insights is typically gained from visualisations during exploratory data analysis?

- A. If stakeholders are satisfied with how the data is presented
- B. How data is distributed and whether assumptions for analysis are met
- C. What software should be used to model and replicate the data
- D. Whether data can be entered manually or automatically

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How does a structured approach to data collection planning support effective problem-solving?

- A. By defining what data is needed and how it will be gathered
- B. By enabling data collection to occur without the need for documentation
- C. By ensuring that all decisions are made before the collected data is reviewed
- D. By reducing the amount of data and information to a single format

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Which of the following coaching outcomes helps to maintain momentum during change initiatives?

- A. Maintaining focus and accountability
- B. Minimising day-to-day interactions
- C. Promoting longer working days and weeks
- D. Reducing opportunities for feedback

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What role does data play in the DMAIC methodology when solving problems?

- A. It allows teams to bypass the analyse phase if the issue seems minor
- B. It ensures decisions are based on measurable evidence rather than assumptions
- C. It helps to confirm that improvement plans are consistent with staff opinions
- D. It replaces the need to involve staff at all levels within the process

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Why is it **key** to have measurable outcomes in a process?

- A. It allows for personal judgement when evaluating a process
- B. It provides clear data for monitoring and improvement
- C. It reduces the number of people needed to manage a process
- D. It removes the need for detailed regulatory reviews and audits

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How does process-capability analysis support improvement decisions?

- A. By comparing customer surveys with production data
- B. By highlighting where a process may need to be adjusted
- C. By replacing the need for process inspections
- D. By reviewing the training needs of employees

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Which of the following is a typical example of a control mechanism used to maintain process stability?

- A. A brainstorming session to generate process ideas
- B. A checklist used to verify that critical steps are completed
- C. A customer service review once the process ends
- D. A team meeting to plan next month's budget

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How does a selection matrix help teams to remain focused when prioritising potential projects?

- A. It avoids over-analysis by limiting the number of options considered
- B. It gives each team member freedom to apply their own scoring approach
- C. It highlights a suitable option by linking set criteria to organisational needs
- D. It simplifies scoring by treating all factors as equally important

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What is the **main** function of a problem statement at the start of an improvement project?

- A. To define the issue and align the team around a shared goal
- B. To explain the root cause of an issue in detail before investigation
- C. To list every potential problem and solution related to the issue
- D. To summarise the final outcomes of previous projects on the issue

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What is the **main** purpose of using affinity grouping?

- A. To assign tasks to individuals based on their job roles
- B. To calculate the total cost of any proposed actions
- C. To categorise ideas based on common themes or relationships
- D. To vote on the most popular solution to a problem

14

What role does a value and waste analysis play in supporting continuous improvement?

- A. It determines budget reallocation improvements for underperforming units
- B. It focuses on departmental key performance indicators (KPIs) for evaluation
- C. It provides a baseline for tracking changes and identifying future improvements
- D. It standardises recruitment processes across different teams and departments

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Why is emotional intelligence **key** when leading a team through change?

- A. It allows leaders to manage emotions effectively
- B. It guarantees rapid completion of tasks
- C. It helps leaders enforce rules strictly
- D. It replaces the need for communication about emotions

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What makes data stratification valuable during root cause analysis?

- A. Feedback is gathered without needing analysis to group or label it
- B. Focused analysis on specific groups can uncover targeted problems
- C. It reduces the volume of data needed from customers
- D. The method ensures all variables are statistically independent

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Which of the following is a limitation of the 'one factor at a time' (OFAT) method?

- A. It cannot be used to detect non-compliance with quality standards
- B. It increases the risk of using the incorrect factors
- C. It may fail to reveal how factors interact with each other
- D. It prevents control over external conditions

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Which of the following is an example of an organisational barrier to change?

- A. Cultural resistance within departments
- B. Fear of losing job security
- C. Low individual confidence in using new systems
- D. Preference for familiar work routines

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How do input and output data work together in performance measurement?

- A. They combine process timelines with stakeholder feedback
- B. They compare the level of productivity between departments
- C. They describe organisation structure and team goals
- D. They help identify cause and effect between process steps

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How does the structure of a scoping tree help teams to understand a project?

- A. By breaking down the main goal into smaller components
- B. By comparing different project budgets visually
- C. By displaying a project timeline for stakeholder meetings
- D. By listing tasks in the order they will be completed

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How does Six Sigma help to improve a product or service quality?

- A. By delivering faster outputs regardless of variation
- B. By increasing production targets without changing processes
- C. By relying on informal feedback from employees
- D. By using structured techniques to reduce errors

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How does discrete data differ from continuous data?

- A. Discrete data allows for infinite possible values
- B. Discrete data cannot be divided into smaller parts
- C. Discrete data includes measurements like temperature
- D. Discrete data shows trends over time using decimal values

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How can urgency influence project selection?

- A. Addressing urgent project problems may require faster action
- B. Delaying urgent projects often improves their feasibility
- C. Urgent projects always align with overall business strategy
- D. Urgent projects are more likely to have lower risks attached

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Under the current Health and Safety at Work etc. Act, what does 'so far as reasonably practicable' mean in relation to an employer's duty?

- A. Any health and safety actions requested by competent staff must be taken by the employers
- B. Employers are only required to take health and safety precautions that are convenient for them
- C. Employers must take actions that are proportionate to the risks and resources available
- D. Every possible action must be taken by employers, regardless of cost or effort

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What does the height of each bar in a histogram indicate?

- A. The distance between the minimum and maximum values
- B. The number of data points that fall within a given range
- C. The order in which data was collected
- D. The total number of different process stages

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What makes brainstorming effective in identifying hidden opportunities?

- A. It avoids introducing untested or unconventional ideas
- B. It filters out suggestions that lack data to back them up
- C. It focuses on analysing past performance trends
- D. It promotes discussion from differing perspectives

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Why is objectivity **key** in an operational definition?

- A. It ensures that personal views influence how data is collected
- B. It helps to ensure consistency and reduces bias
- C. It increases the time needed to complete a project
- D. It provides room for flexible planning and creativity

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Which of the following is an effective method to support an individual who is initially resistant to change?

- A. Leadership that models commitment to the change
- B. Limiting communication to essential updates only
- C. Postponing change until all staff fully agree
- D. Reducing performance expectations during the transition

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Why is sampling typically chosen instead of collecting full data from an entire population?

- A. It eliminates the need for deep data analysis and interpretation
- B. It guarantees total accuracy when analysing data
- C. It provides detailed opinions from each participant
- D. It saves time and resources while giving useful insights

30

How do interim containment actions (ICAs) help to protect a customer during an issue?

- A. By launching a public campaign that explains the problem
- B. By preventing the delivery of defective products or services
- C. By providing compensation in the event of poor service
- D. By replacing the current supplier with a newer one

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Which of the following demonstrates effective communication during organisational change?

- A. Communicating changes only to senior leaders
- B. Holding regular open forums for team updates
- C. Issuing a written communication without feedback channels
- D. Posting anonymous notices to the team about changes

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Which of the following factors typically leads to taking a larger sample when collecting data?

- A. The data shows a lot of variation
- B. The margin of error allowed in the sample is wide
- C. The data is stable or consistent
- D. The sample is taken from a very small group

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Which of the following demonstrates the Plan Do Check Act approach being used for training and development?

- A. Creating job adverts to recruit new team members
- B. Increasing budgets based on annual targets
- C. Reviewing employee feedback to improve coaching materials
- D. Rotating job roles to increase staffing flexibility

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Which benefit of process mapping supports better customer outcomes?

- A. Enhancing team productivity through benchmarking
- B. Improving clarity in data storage systems
- C. Preventing access to internal processes
- D. Reducing process delays that affect service delivery

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What is the **main** purpose of using a control chart in process improvement?

- A. To manage team roles and shift patterns during a project
- B. To monitor its performance and detect unusual variation
- C. To rank employee performance based on output
- D. To record customer complaints in one place

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What does a well-structured goal statement typically include?

- A. A review of departmental staff performance metrics
- B. A summary of failures, lessons learnt and corrective actions
- C. A timeline, scope and alignment with business objectives
- D. An open-ended objective to promote innovation

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What kind of insight does continuous data provide during capability analysis?

- A. Differences between departments
- B. Preferences from stakeholder interviews
- C. Total number of failed batches
- D. Trends or small shifts in the process

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According to the Lean principle of value stream mapping, which two categories is waste made up of?

- A. Non-value added but necessary, and non-value added and unnecessary
- B. Non-value added but necessary, and value added and necessary
- C. Value added and necessary, and value added but unnecessary
- D. Value added but necessary, and non-value added and unnecessary

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Which of the following is a **key** benefit of maintaining continuous communication during a change initiative?

- A. It allows teams to adapt to the change in their own way
- B. It encourages consistent understanding between staff
- C. It ensures only managers are responsible for the change
- D. It reduces the need to track staff progress formally

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Which of the following is an example of discrete data used in performance metrics?

- A. Average delivery time in hours
- B. Number of defective items in a batch
- C. Percentage change in customer satisfaction
- D. Volume of product used in litres

Level 3

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