

Paper Code: M-EPA-IMP4005

Level
4

Improvement Practitioner - EPA Mock Multiple-Choice Exam (Open Book)

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

Why is stakeholder support considered when selecting an improvement project?

- A. It ensures that all projects can be implemented without resistance or need for adaptation
- B. It guarantees that the project will require minimal oversight to ensure execution
- C. It increases the likelihood of success through alignment with key interests in the project
- D. It removes the need for performance tracking as their approval confirms the project's value

2

Why is passive analytics typically used in strategic decision-making?

- A. It eliminates variability by removing real-time fluctuations from data
- B. It enables real-time alerts for immediate corrective actions
- C. It focuses on long-term insights that inform future improvements
- D. It requires no human oversight so functions without intervention

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How does Six Sigma enhance process efficiency in a business?

- A. By focusing on cost-cutting measures rather than process improvement
- B. By increasing production targets regardless of process capability
- C. By replacing human decision-making with automated processes
- D. By systematically reducing process variation to improve consistency

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What is the **main** purpose of measures of central tendency?

- A. To calculate the spread and variability of a dataset
- B. To display all data points in a frequency distribution
- C. To rank data points from the highest to lowest values
- D. To summarise a dataset using 1 representative value

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What does failure mode refer to in failure analysis?

- A. The environmental factors that contribute to a system breakdown
- B. The impact of a failure on the overall process and customer experience
- C. The root cause that leads to the failure and malfunction of a system
- D. The specific way a system or component fails to function correctly

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What is the **main** function of pivot tables in data analysis?

- A. To create complex visualisations without requiring structured data
- B. To eliminate the need for complex spreadsheets in financial reporting
- C. To permanently alter data to fit predefined reporting structures
- D. To summarise large datasets without modifying the original data

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How does an employer comply with their duty to maintain a safe working environment?

- A. By allowing employees to assess and control risks independently
- B. By conducting risk assessments only after an incident occurs
- C. By ensuring employees take full responsibility for their own health and safety
- D. By ensuring hazards are controlled and risks to health and safety are minimised

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Which of the following is a **key** advantage of using graphical representation for data analysis?

- A. It guarantees accurate conclusions without requiring further analysis
- B. It removes the need for numerical analysis in data-driven decisions
- C. It replaces all written explanations, reducing the need for reports
- D. It simplifies complex information, making trends easier to interpret

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Which of the following verification methods is typically used to confirm root causes?

- A. Conducting data analysis to find trends and inconsistencies
- B. Disregarding historical data and relying on new observations
- C. Eliminating all possible causes without the need for further testing
- D. Implementing changes without delay or verification

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What role does value stream mapping play in reducing lead time?

- A. It focuses on reducing the number of steps in a process without evaluating their impact
- B. It helps to eliminate delays, allowing products or services to reach customers faster
- C. It prioritises cost reduction over process speed and efficiency
- D. It standardises the time taken for all tasks and eliminates inconsistencies

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How does automation support a business in achieving customer compliance?

- A. By ensuring compliance processes are efficient and consistent
- B. By guaranteeing that all customer expectations are exceeded
- C. By preventing the need for legal compliance altogether
- D. By reducing the importance of data protection regulations

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What is the **main** risk of incorrectly identifying the main constraint in a process?

- A. It forces organisations to redesign the entire workflow, leading to operational disruptions
- B. It leads to excessive focus on short-term efficiency gains rather than long-term stability
- C. It prevents any improvements from being made in other areas of the system
- D. It results in increased production costs while failing to improve process performance

13

How can organisations use change curve theory to support employees during transitions?

- A. By assuming that resistance means the change is unsuccessful
- B. By expecting all employees to accept the change immediately
- C. By limiting communication to avoid unnecessary concerns about change
- D. By recognising resistance as a natural stage of the change process

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How does process management contribute to efficiency in a project?

- A. By eliminating the need for monitoring and evaluation
- B. By ensuring that every project follows the same steps regardless of scope
- C. By increasing project complexity through additional documentation
- D. By streamlining workflows and reducing wasted time and resources

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Why do organisations typically choose open-source statistical analysis tools over licensed ones?

- A. Licensed software always processes data slower
- B. Licensed software lacks features for data analysis
- C. Open-source tools always provide better customer support
- D. Open-source tools offer greater customisation for scripting

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How does Lean's focus on eliminating waste (Muda) contribute to operational excellence?

- A. By ensuring that all company resources are fully utilised, even if some activities do not add value
- B. By maintaining strict process controls that limit flexibility in responding to customer needs and wants
- C. By prioritising speed over quality, ensuring rapid production regardless of process inefficiencies
- D. By systematically identifying inefficiencies, leading to cost savings and productivity gains

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Which of the following is a direct impact of poor quality in Overall Equipment Effectiveness (OEE)?

- A. Faster cycle times, increasing overall output
- B. Higher defect rates, leading to more rework and scrap
- C. Increased machine downtime due to unplanned maintenance
- D. Reduced scheduled production time for preventive maintenance

18

Which of the following is a **key** difference between repeatability and reproducibility?

- A. Repeatability applies to different instruments used during testing, while reproducibility applies to different testing environments
- B. Repeatability ensures accuracy over time, while reproducibility ensures accuracy across different locations
- C. Repeatability focuses on errors in data, while reproducibility focuses on correcting inaccurate measurements
- D. Repeatability measures consistency for 1 operator, while reproducibility measures consistency across multiple operators

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Which of the following is an example of an internal failure cost according to the cost of poor quality (CoPQ)?

- A. A company conducting a third-party audit on supplier components
- B. A manufacturer scrapping defective products before they leave the factory
- C. A retailer issuing refunds due to customer complaints about defective goods
- D. A service provider offering customer compensation for a failed service

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What is indicated when a process has a capability index (Cp) value greater than 1?

- A. The process is fully automated so does not require monitoring
- B. The process is producing outputs that are completely defect-free
- C. The process mean is perfectly aligned with the target value
- D. The process variation is within the allowable specification limits

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What impact does the RACI model have on accountability in change management?

- A. It allows multiple people to be accountable for the same task
- B. It eliminates the need to track individual accountability
- C. It ensures each task has a designated accountable person
- D. It reduces the importance of accountability in project outcomes

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How does the interquartile range (IQR) improve the understanding of spread?

- A. By calculating the difference between the smallest and largest values
- B. By determining the most frequently occurring value in a dataset
- C. By finding the average of all data points within a given dataset
- D. By measuring the dispersion of the middle 50% of data points

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What does a point above the upper control limit (UCL) indicate?

- A. A minor fluctuation expected in normal process behaviour
- B. A potential special cause variation requiring investigation
- C. A predictable change in the process due to natural variation
- D. A shift in the centre line due to changes in measurement tools

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How does continuous data improve process capability analysis?

- A. It allows for calculations of the mean and standard deviation to occur
- B. It eliminates all forms of automatic process data variation
- C. It ensures all processes are operating at maximum efficiency
- D. It reduces the need for data collection in quality management

25

Which of the following describes the pull-based nature of Kanban?

- A. All processes operate independently without considering inventory levels
- B. It ensures maximum production at all times to minimise total downtime
- C. New production is initiated only when there is actual demand or consumption
- D. Production is scheduled in advance to maintain a constant output rate

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Which of the following is a **key** benefit of using a toll-gate review process?

- A. It eliminates the need for widescale budgeting
- B. It ensures decisions are only made by senior management
- C. It guarantees that the project is completed on time
- D. It helps a business to manage its risks effectively

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What is the **main** purpose of a work breakdown structure (WBS)?

- A. To clearly define the scope of a project
- B. To eliminate the need for a project schedule
- C. To reduce the number of project team members
- D. To replace project documentation

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What is the **main** purpose of the Is/Is Not problem analysis model?

- A. To define a problem by distinguishing its relevance, narrowing the scope of investigation
- B. To generate multiple potential solutions before fully understanding the problem statement
- C. To immediately identify the root cause of an issue without the need for further analysis
- D. To replace all other problem-solving methodologies, making alternative tools unnecessary

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Why is evaluating critical inputs important for effective problem-solving?

- A. It allows businesses to standardise every process, preventing all unexpected problems
- B. It ensures that all problems can be eliminated by focusing on input materials
- C. It helps isolate key factors affecting performance to prioritise corrective actions
- D. It reduces the need for complex data collection by assuming inputs have equal impact

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How does cascading the balanced scorecard improve accountability within an organisation?

- A. By allowing employees to choose their own performance metrics, independent of company strategy
- B. By clearly linking objectives to broader business goals, ensuring that responsibilities are well-defined
- C. By ensuring that accountability remains at the executive level, reducing pressure on teams
- D. By focusing on management-level accountability without engaging employees at lower levels

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What is the **key** objective of the D4 phase of the 8D problem-solving approach?

- A. To analyse data and determine the root cause of the issue
- B. To apply quick fixes to the problem before identifying underlying issues
- C. To assign responsibility for the issue to a single team or department
- D. To implement corrective actions to the identified problem

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What is the **main** purpose of documenting risks in a risk register?

- A. To allow stakeholders to review and manage risks proactively
- B. To keep risk management separate from project planning
- C. To list the financial risks without considering operational impacts
- D. To minimise the number of decisions involved in risk management

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Which of the following is a potential problem associated with poor benefits tracking in project management?

- A. Only tangible benefits will be monitored, disregarding financial aspects
- B. Resources may be allocated inefficiently, reducing overall value
- C. Stakeholders will always have to wait until project completion for benefits
- D. The project will automatically fail due to a lack of data

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What type of processes benefit from using swim lanes in a flow diagram?

- A. Processes that do not involve collaboration between different teams
- B. Processes that follow a strictly linear path with no variations or decisions
- C. Processes that involve multiple stakeholders with distinct responsibilities
- D. Processes that require minimal handoffs between roles and responsibilities

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How is Takt time calculated?

- A. Available production time divided by customer demand
- B. Available production time multiplied by the number of required units
- C. Customer demand multiplied by the total available production time
- D. The total number of units produced divided by the total shift time

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How do control factors function within a Parameter diagram (P-diagram)?

- A. They are adjustable variables used to influence the system's behaviour
- B. They are uncontrollable variables that disrupt system performance
- C. They define the final output of a process and determine success metrics
- D. They eliminate the need for testing by predicting failure modes automatically

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What is the **main** responsibility of a sponsor in a change initiative?

- A. Defining the vision and aligning the change with organisational goals
- B. Ensuring the organisation's day-to-day operations continue as usual
- C. Leading all project tasks to ensure change is implemented correctly
- D. Managing employee performance and project stages

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Why is it **key** to establish clear objectives when designing an experiment plan?

- A. It allows experiments to be conducted without requiring a hypothesis or predefined structure
- B. It eliminates all sources of variation, which guarantees consistent results in every trial
- C. It ensures the experiment remains aligned with the required output
- D. It prevents the need for statistical analysis by ensuring that all outcomes are directly observable

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What is the **main** purpose of Failure Mode and Effects Analysis (FMEA)?

- A. To document previous failures without implementing corrective measures and improvements
- B. To eliminate all possible failures in a process to ensure zero defects in all operations
- C. To replace real-world testing with theoretical failure analysis, removing the need for validation
- D. To systematically identify and mitigate potential failure modes before they occur

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What does the presence of an escape point indicate?

- A. A failure in quality control or inspection processes
- B. A feature designed to allow defects to be disregarded
- C. A method to eliminate unnecessary process steps
- D. A necessary step to speed up defect identification

Level 4

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