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Content

Introduction	4
Sample Exam	5
Answer Key	30
Evaluation	72





Introduction

This is the EXIN Lean IT Leadership (LEANITL.EN) sample exam. The Rules and Regulations for EXIN's examinations apply to this exam.

This exam consists of 60 multiple-choice questions. Each multiple-choice question has a number of possible answers, of which only one is correct.

The maximum number of points that can be obtained for this exam is 60. Each correct answer is worth 1 point. You need 39 points or more to pass the exam.

The time allowed for this exam is 120 minutes.

You are allowed to use the exam literature for this exam.

Good luck!





Sample Exam

1 / 60

What is not one of the Shingo Guiding Principles?

- A) Create Constancy of Purpose
- **B)** Lead with Humility
- **C)** Think Systemically
- **D)** Walk Around

2 / 60

Which step in the development 'Lean Leadership Development Model' by Jeffrey Liker is considered the **most** important?

- A) Coach and Develop Others
- B) Commit to Self-Development
- C) Create Vision and Align Goals
- D) Support Daily Kaizen

3 / 60

In terms of systems, what is the meaning of holistic thinking?

- A) Being aware of the relationships between components.
- B) Focusing on creating a vision for the near or distant future.
- **C)** Realizing the full value of operational excellence across the organization.
- D) Understanding how changes ripple across the value stream.

4 / 60

IT is seen as a supporting and sometimes non-core or non-essential function.

Why is this assumption flawed?

- A) IT is often one of the largest departments in the organization and provides a core service to all.
- B) IT often provides services to the external market in order to recover costs.
- C) Most if not all core business functions are automated by IT systems and services.
- **D)** The IT department usually manages its own finances because of the complexity of IT finances and perceived independence.





What are the differences between the Lean IT Leadership approach and the Level 5 Leadership approach, described by Collins?

A) There are many differences, two of which are:

- The Level 5 Leadership approach often has more of a political or hierarchical touch, and is very focused on exercising control and power.

- The Level 5 Leadership approach is more commonly applied in a western culture, whereas Lean IT Leadership is more commonly applied in eastern cultures.

- B) There are no differences. The two terms are actually synonymous and the term 'Lean IT Leadership' has been created based on the work of Jim Collins.
- C) There are no significant differences. The Lean IT Leadership approach and the Level 5 Leadership approach both advocate strong personal leadership, modesty, humility, respect, focus and systemic and structured thinking.
- D) There are some differences. The Level 5 Leadership approach is more focused on ensuring a stern strategic focus, whereas the Lean IT Leadership approach focuses more on respect, standardization and accountability.

6 / 60

An IT department is categorized as 'System/Service Focused', indicating a level of maturity where infrastructure and applications work together in the eyes of the customer. However structurally the Application and Infrastructure organizations have very limited integration and few if any shared processes. At this level of maturity the IT organization perceives just two forms of Flow both of which are recognizable by the end-user.

What are the forms of Flow perceived by the IT organization?

- A) Plan & Build, and Run
- B) Plan & Build, Service Delivery
- C) Plan & Build, Service Management
- D) Run, Service Management

7 / 60

How frequently should an activity such as Budget Review be included in a Leader Standard Work?

- A) Daily
- B) Weekly
- C) Monthly
- D) Quarterly

8 / 60 How can we attain Flow Efficiency?

- A) Create a chain of specialists in the process.
- B) Focus on more variation in the workforce.
- C) Focus on the unit of work that is processed.
- D) Use resources as efficiently as possible.





What is the first step in the adapted PDCA learning cycle for personal improvement of a Lean leader?

- A) Advance
- B) Check
- **C)** Do
- D) Prepare

10 / 60

In the context of a highly functional team, what is a characteristic of a 'safe environment'?

- A) Criticism is encouraged as a learning tool.
- B) Individual team members are able to speak freely.
- C) Team leadership is rotated on a regular basis.
- D) The team operates in a risk-free environment.

11 / 60

Which key tool for Lean Leaders helps to identify where issues and deviations are happening in the Leader's work?

- A) Gemba Walk
- B) Shu-Ha-Ri
- C) Standard work list
- D) Visual Management

12 / 60

Of which routine of Leader Standard Work in IT is 'Processing issues on the improvement board' a part?

- A) Activities to align goals
- B) Daily Kaizen activities
- C) Weekly improvement activities
- D) Improvement Kaizen activities





As a team leader you have developed a good way of conducting performance review sessions with your employees. Both they and you get good value and feedback from the sessions. In fact your senior manager has asked you to say a few words about your approach to performance evaluations at your next management meeting.

For your presentation you have to put to word, what it is that you do exactly, which gives you a great opportunity to reflect on your performance and tasks. In preparing for the meeting you come up with some improvement ideas, but you are not sure whether to include them in the presentation or not. The ideas may not work, but they could potentially improve the value of the performance review sessions tremendously.

What is the **best** approach here?

- A) Ask to be given a timeslot on a later management meeting, giving you time to test some of the improvement ideas that you have for your standard. This ensures that the practice presented to the other team leader is an improved version.
- **B)** Present your current practice, which you know works. Ensure you have a timeslot on the next meeting to reflect, to hear improvement ideas from your colleagues and to share your ideas for improvement.
- **C)** Give a presentation for your colleagues on your current practice. Show your improvement ideas as a separate item, to be discussed with their improvement ideas and reflections in a later management meeting.
- **D)** Ensure that the presentation contains both your current practice and your improvement suggestions. Insist on a timeslot in the next meeting as well, to revisit and verify your improvement ideas with the other team leaders.





You need to get your day under control; you are being pulled in all directions, leaving you no time to prepare for meetings or get things done. Particularly you sense that there is no time for an improvement focus.

So, you decide to apply Leader Standard Work on your own leadership activities.

What are the most important things to focus on when applying Leader Standard Work?

- A) When establishing Leader Standard Work, it is important to:
 - 1. Identify tasks, which are repetitive.
 - 2. Analyze the best way to do the tasks to achieve the desired outcome.
 - 3. Ensure that you discuss the priorities of the team in each team meeting.
 - 4. Make the Leader Standard Work visible to the employees, thus encouraging input.
- B) When establishing Leader Standard Work, it is important to:
 - 1. Identify tasks, which are repetitive.
 - 2. Identify tasks that can be delegated.
 - 3. List all one-off activities over the course of a couple of weeks, in an attempt to standardize them.

4. Adjust according to your level of management. The higher the level, the less repetitive the tasks you should be performing.

- C) When establishing Leader Standard Work, it is important to:
 - 1. Identify tasks, which are repetitive.
 - 2. Standardize repetitive tasks as much as possible.

3. Ensure that the Leader Standard Work is developed together with the team, in order to ensure that it matches their requirements.

4. Ensure that the Leader Standard Work focuses only on getting work done and not on driving continuous improvement.

- D) When establishing Leader Standard Work, it is important to:
 - 1. Identify tasks, which are repetitive.
 - 2. Standardize repetitive tasks as much as possible.
 - 3. Leave room for reminders, which are (one-off) tasks not yet standardized.
 - 4. Recognize that the higher the level, the less repetitive tasks you should be performing.





You have managed an Enterprise Resource Planning (ERP) development team for 3 years, and have reached the point where the daily development runs smoothly, and the system performs well. Now you want to focus on your own ability as a Lean IT Leader. You need to dig deeper within yourself in order to improve your own performance and the team spirit. You have decided to become a Lean IT Leader.

What do you most need to focus on in order to become a Lean IT Leader?

- A) You need to understand and connect to the True North of the organization. You know that you will face challenges, so you need to find a coach to help you reflect, learn, identify learning cycles, and practice your leadership in order to develop.
- **B)** You need to ensure that you create a good learning environment for yourself as well as for your team. You need the trust of your team, a Kaizen mindset and the correct visual tools to improve. This will allow you and your team to develop together.
- **C)** You need to find a coach to help you reflect, and then you need to find out what it is that you have to learn, with your coach supporting your efforts. You need to identify your blind spots. When you know your blind spots, so that you can start working on them.
- **D)** You start with reading about Lean IT Leadership, so that you better understand the principles. With your background, you feel quite comfortable that you are able to apply some of what you learn from the literature right away, allowing you to get started on practicing and learning.

16 / 60

A team of IT Change Managers is experiencing tremendous work pressure, due to meetings regarding their change requests.

The meetings always end later than planned and take too much time. Furthermore, it appears that many topics and changes are discussed several times with the same department, but in different meetings.

What would be a Lean improvement or action to improve these meetings?

- A) Maximize the time spent on Change meetings.
- B) Set a limit to the amount of changes registered in a month.
- C) Set a limit to the amount of participants in the meetings.
- D) Find and agree on a way to standardize meetings.





For the last couple of months you have experienced an escalation of conflict and attitude from one particular employee. This person appears to resent most of the things you say and do, and has lost focus and productivity. Something needs to change, as the situation is seriously impacting your focus and the results and atmosphere within the team. Last week, you had a meeting with HR to understand your position in case you need to dismiss the employee. This week you have a meeting with the employee to discuss performance and improvement.

What would be the most important things you need to do and consider to prepare for this meeting?

- A) Discuss the matter with your manager and state that the situation cannot continue. Secure the mandate to proceed with letting your employee go, in order to solve the issue. Prepare for dismissal, as you have ample proof of low performance.
- **B)** Ensure that you are absolutely certain what you really think about the matter and what you would like to see happen at the meeting. Ensure you understand who has done and said what over the last couple of months, and who should take responsibility in the matter.
- **C)** Ensure that you can discuss first-hand experiences from the 'Gemba' having reflected on your own responsibilities and accountability in the matter. Prepare to understand the root cause of the situation and reflect on the learnings for you as a leader.
- **D)** Ensure that you know exactly what has gone on and what people have experienced in relation to the matter. It is important that no action is taken before the root cause is known so you need to ensure that the employee is allowed to vent frustration, tell their stories and react to the situation.

18 / 60

You have been trying this 'Lean IT Leadership' thing out for a couple of months now, and you are getting a bit frustrated. Most of the time, your team finds your daily Gemba walks to be more disruptive than supportive to their work. They are getting a bit annoyed with the interference. You spend around 15-20 minutes on your Gemba walk every day, and make sure that you 'visit' all teams and all stations. The rest of the day you are in your usual meetings and handle the usual issues that come up. You ask your Lean coach for advice.

What is most likely to be the advice your coach gives you?

- A) To discuss with your employees how to make the conversations you have during Gemba walks more value adding than disturbing.
- **B)** To observe well before you challenge your employees on their practice or raise issues. This way you ensure that you do not ask questions for the sake of asking and that your discussions with your employees are adding value.
- **C)** To ponder what the root cause of the problem is. Why are the Gemba walks not yielding the desired result? Once you have found the root cause, your coach will ask you to change what is wrong, so you can improve.
- **D)** To ensure that you observe more before you ask questions. In addition, ensure that you do not cloud the employees' perspective by bringing too many observations and opinions to the discussions.

19 / 60

What action defines the purpose of Genchi Genbutsu?

- A) Decide whether the work is done in the right way.
- B) Ensure that problems cannot remain unseen.
- C) Look and guess the reason why things happen.
- **D)** Observe what is happening without judging.





20 / 60 What is the 5-Why analysis?

- A) A cyclic planning and management concept applied at the strategic level
- **B)** A simple root cause analysis that aims to question a situation through sequential causes
- **C)** An informal process of laying the foundation for a change or project that will require teamwork
- D) Opinions on the root cause of a problem offered by IT engineers during a Gemba walk

21 / 60

Why is it important that IT Leaders take an active role in eliminating Mura and Muri?

- A) During a Gemba walk Leaders are in a position to tell their staff to do something about it.
- B) Leaders can look for patterns, forms, and habits at the Gemba.
- C) Leaders have the most influential and direct impact on issues related to Mura and Muri.
- D) Only Leaders should look for the reasons why something went wrong.

22 / 60

What is the purpose of a Gallery walk?

- A) To assess individual performance as part of an assessment program.
- B) To be visible to the employees within the leader's own department primarily for their own benefit.
- C) To determine individual contributions to departmental objectives.
- D) To meet with individual employees and discuss issues and problems.

23 / 60

Which Lean tool does not help a Leader to spot a problem during a Gemba walk?

- A) Jidoka
- B) Kanban
- C) Time Metrics
- D) Value Stream Map





You have just implemented a new tool for tracking tickets (an ITSM tool) at the Service Desks in the 5 regions you manage. A month after implementation, you are excited to get the first data on the distribution of tickets into different categories.

When you receive the report for the first month, you find that it is partially valuable and informative, and shows exactly some of the trends you were hoping it would show. However, in terms of distributing tickets into categories, you are unsure whether the results are consistent with the actual distribution. For instance, you know that there were many 'password reset' tickets last month in your own region but there are very few tickets with that category for your region in the report.

What is the best way forward from here?

- A) Your approach to this issue should be:
 - 1. Ask WHERE three times
 - 2. Put the problem statement in the top row of a 2 x 5 table
 - 3. Ask WHY five times

4. Record a solution to each of the replies to your question of WHY

After this you should obtain input on validating and prioritizing solutions from your employees and lay the foundation for a solution.

- B) Your approach to this issue should be:
 - 1. Ask WHERE three times
 - 2. Put the problem statement in the top row of a 2 x 5 table
 - 3. Ask WHY five times

4. Record a solution to each of the replies to your question of WHY

After this you start the process of Nemawashi to gain support for a solution.

- C) Your approach to this issue should be:
 - 1. Go to Gemba and observe
 - 2. Ask WHY five times
 - 3. Record a solution to each of the replies to your question of WHY

After this you should obtain input on solutions from your employees and lay the foundation for a solution.

- D) Your approach to this issue should be:
 - 1. Go to Gemba and observe
 - 2. Ask WHY five times
 - 3. Record a solution to each of the replies to your question of WHY

After this you should start the process of Nemawashi to gain support for a solution.





Sitting at your desk, you sometimes wonder what you can do to make your daily Gemba walk even more beneficial than they already are.

During your walks you usually have great talks with your staff about issues they face, how they might go about fixing them and what you can do, on a management level, to help.

However, you want to be clear about how to apply the Jidoka principle to your Gemba walks.

What is the **best** way to achieve this?

- A) Ensure that each member of the team knows how to escalate and visualize any problem they find.
- **B)** Ensure that the expected and current status on important KPIs and processes are identified and visible.
- C) Ensure that you have KPIs for all important processes, so that you know the quality of the output.
- D) Implement an information dashboard, creating a special whiteboard for making problems visible.

26 / 60

You are the team leader on a server team, where you are currently focusing on improving the process for fulfilling requests for new standard servers. To do this, you use both actual observations and data from your ordering system. The data shows that you may have a major issue with the patch preparation process step, as the process time is triple what you expect and what appears to be reasonable. You are unsure what you should do to move your improvement efforts along.

What is the **best** approach from here?

- A) First, ensure that you know what you are looking at, then ensure you understand why the issues occur - what the root causes are. Showing respect to the people involved in the process, you then discuss the issues and potential solution with them. During the discussions you find that employees give good input and challenge their own processes. You do not always agree, but you get good input.
- **B)** First, ensure that you know what you are looking at, then ensure you understand why the issues occur what the root causes are. Showing respect to the people involved in the process, you then discuss the issues and potential solution with them. You find that some of the employees have gone ahead and made their own sub-procedures, so you use the opportunity to discuss the inadvisability of this.
- **C)** You need to see more data to understand the root causes of the issues, so you ask for a more detailed report from your ITSM tool. You then identify a hypothesis as to what the causes may be, and analyze them for validity. Once you have found significant data to support your hypothesis on root causes, you discuss potential solutions with the employees involved. They draw up the improved process themselves.
- D) You need to see more data to understand the root causes of the issues, so you ask for a more detailed report from your ITSM tool. You then identify a hypothesis as to what the causes may be, and analyze them for validity. Once you have found significant data to support your hypothesis on root causes, you discuss potential solutions with the employees involved. You draw up the improved process.





Within your organization, your team of business analysts is responsible for producing requirement specifications for the IT aspects of business projects. Over the last year, you have observed a growing need for a standard approach to producing specifications, as well as improving the quality of deliverables from your team.

In order to ensure a standard approach to producing specifications, you need to get an overview of the skills and knowledge present in your team today.

What is the best way to go about working with skills and knowledge in your organization?

- A) You conduct interviews in order to map and analyze the skills and knowledge level of the employees in the organization. You present your findings to the managers of the employees so they can create a plan to correct the knowledge and skill levels that are lacking. Their managers will direct the employees' attention to improving their performance, and will increase the frequency of their performance review sessions.
- **B)** You identify the ten most important skills required to produce high-quality requirement specifications, and then map them by interviewing your employees individually. You ask their input for when you analyze for skills gaps and create a plan to improve the situation.
- **C)** You identify which skills and knowledge are required for solving and delivering the tasks that the organization works on. With the involvement of the team you map and analyze the skills and knowledge required within the organization. The overview is shared across the organization and a plan created to fill the skills and knowledge gaps.
- **D)** You map and analyze the knowledge that your employees have because this is the quickest way to ensure you can offer high-quality, uniform requirement specifications. Once this has been done, and you feel the department is ready for another 'initiative', you then proceed to map and analyze skills as well.

28 / 60

You find it challenging to ensure that you have sufficient resources available, for the volume and complexity of tasks, which your team needs to handle.

To gain an accurate understanding of the situation you need to perform an overview of skills and knowledge in your team, and have decided to do it the way you were taught in the Lean IT Leadership course you recently attended.

But what are the **best** ways of gathering this knowledge?

- A) You ask your coordinator to gather the overview for you, and present the findings. The coordinator will invite everybody to a workshop, where everyone's skill and knowledge levels will be determined.
- **B)** You invite your employees to individual interviews, where you discuss their level of knowledge and skill, as well as obtain their input on why the overall situation is the way it is.
- **C)** You allow the employees to interview each other, in order to ensure that the information is gathered in a dialog-based manner. Such dialog should ensure that they are not tempted to 'inflate' or 'deflate' their skill or knowledge level, as their colleague would challenge them to calibrate it correctly.
- **D)** You send out a questionnaire to all employees to fill out and return to you. This gives you a very good overview, which is easy to compile on the basis of the questionnaire feedback.





Why is Daily Kaizen more closely related to the Kaizen mindset than Improvement Kaizen?

- A) Because Daily Kaizen brings together a group of people who have an interest in solving a particular problem.
- **B)** Because Daily Kaizen concerns a Leader's willingness to seek input, listen carefully, and continuously learn.
- **C)** Because Daily Kaizen means being constantly alert to major and minor issues that need to be addressed directly and quickly.
- **D)** Because Daily Kaizen means that reliance is on first-hand observation and learning to understand situations.

30 / 60

What is a characteristic of a group, rather than of a team?

- A) Active problem solving
- B) Doing real work together
- **C)** Running efficient meetings
- D) Sharing leadership roles

31 / 60

How can a Lean IT leader actively balance resource utilization in order to improve Flow?

- A) By helping to remove Muri
- **B)** By helping to remove Mura
- C) By performing a Gemba walk
- D) By using the 5-Why technique

32 / 60

Patrick Lencioni describes a hierarchical model '5 dysfunctions of teams'.

Which of the following are levels of team development according to this model?

- A) Accountability
 - Group responsibility
- B) Commitment to each other - Skills contribution
- **C)** Goal-sharing
- Achievement of objectives
- D) Teamwork starts with trust
 - Improvement through conflict





Everyone in an IT team is responsible for a similar part of the software or type of hardware.

What type of IT team is this?

- A) Customer-oriented team
- B) Project team
- C) Service-oriented team
- D) Technical team

34 / 60

You have learned that a Kaizen mindset is important for succeeding with Lean. You have managed your team for nearly 3 years, but have not yet really gotten anywhere with improvement work. Team members think of it as a bit of a nuisance: some of them refer to improvement as a disturbance to their work.

What is the best way to support changing the culture in your team towards a Lean Kaizen mindset?

- A) Analyze the trends and issues in the tasks that the team works on and allocate resources to work on what appear to be the most urgent of the issues you uncover. This ensures that some Kaizen action is taken.
- **B)** Demonstrate Lean behavior in your own Daily Kaizen work and focus on involving the right resources for Improvement Kaizen whenever the need for this approach arises. This ensures a balanced approach to changing the mindset towards Kaizen.
- **C)** Identify the current main issues and ensure that the best qualified resources are assigned to fixing them in a Kaizen way. This will send a clear message to your team that something is being done.
- **D)** Ensure that the team's Daily Kaizen work takes place, focusing the Kaizen effort on the easy improve opportunities. This sends a clear message to all employees of what to improve and what to ignore.

35 / 60

You have been put in charge of permission management via Active Directory (AD) and hence you are also responsible for the process of handling requests for additions and changes to the current AD setup. The Client Management team has challenged you to improve the flow dramatically as clients are very unhappy with both the quality and speed at which the requests are handled. The task has historically been handled by several teams, each handling their own part of the AD setup, which has resulted in many different approaches to handling requests, and a jumbled structure within AD.

What is the **best** place to start, to ensure a better flow in the process of handling requests for additions and changes to the AD setup?

- A) Ensure that the work environment is uncluttered, identify and analyze the value stream to address waste, variability and constraints.
- **B)** Focus on increasing resource efficiency within the process to ensure that requests are turned around as quickly as possible.
- **C)** Identify the sources of poor quality in the requests delivered in order to see fewer re-opened requests (and hence fewer complaints).
- **D)** Start by setting up a Heijunka system to ensure that the flow of requests is directed correctly to each solution team.





The Application Development team has been reporting chronic issues which stem from a lack of visibility of Service Desk issues. The Service Desk hears of user issues with recently released application enhancements, but Application Development only hears about them weeks later after 'a crisis' occurs and they are told about it.

As a Lean IT Leader, what is the most effective way to address this situation?

- **A)** Apply Daily Kaizen by making Continuous Improvement part of the normal way the Application Development team operates.
- **B)** Apply the Daily Kaizen technique of team Daily Stand-up Meetings where the Service Desk can share user issues with the Application Development team and address root cause.
- **C)** Form a cross-functional team and hold a Kaizen event to understand the situation and develop a series of countermeasures to address the problem.
- **D)** These issues are a part of IT. A leader's role is to determine the most important things to work on and distinguish between "things we can improve" and "things beyond our control".

37 / 60

The Service Desk team in your organization is divided into six different functional areas based on the core applications they support (Supply Chain, Manufacturing, Customer Management, Product Development, Warehouse, Finance).

Each team is aware of the other support groups but focus on specializing in their area of expertise, the result of which promotes a false sense of separation in which teams operate almost independently of the other groups.

Frequently, end users utilize multiple applications and recently reported that getting timely and adequate service for issues and incidents that cross boundaries between functional areas is very difficult and impacts product quality, customer service, on-time delivery, and profitability. Each functional team's metrics show high levels of performance.

As a Lean IT leader, how do you think the groups are functioning as a team and what do they need to do to improve their performance?

- A) The fact that the Service Desk knows about the issues of multi-functional support is evidence that they are a well-functioning team. All they need is a shared measurement system to align efforts among each functional group.
- **B)** The Service Desk groups are functioning as designed and doing well it is the end users that do not understand that they need to use the Service Desk properly to access the people they need.
- **C)** They are performing at a very high level as proven by their high performance scores, each team has experts in their functional area and do the best they can. Given their expertise, they don't need anything.
- **D)** While they have strong performance metrics, there is room for improvement. The teams need a shared goal and a service delivery orientation among the functional areas.





As part of Leader Standard Work in IT, how often do team coaching sessions take place?

- A) Daily
- B) Weekly
- C) Monthly
- D) Quarterly

39 / 60

What is one of the key characteristics of Hoshin Kanri?

- A) Kata of Leadership
- B) Nemawashi
- C) Shingo
- D) Shu-Ha-Ri

40 / 60

Which tool for communication directly supports the Lean principle of Jidoka?

- A) Cascade
- B) Performance Dialog
- C) Pyramid Principle
- D) Visual management

41 / 60

In the context of Hoshin Kanri, what is the objective of vertical alignment?

- A) To ensure that all parts of the organization support the development, operations and support plans.
- **B)** To ensure that all information is cascaded across the organization in a consistent manner.
- **C)** To ensure that the alignment of the goals of all stakeholders from the boardroom to operations.
- **D)** To ensure that the organization is correctly structured according to the key objectives.

42 / 60

What is the key principle behind the method known as Catch-ball Communication?

- A) Regular cascade of key information from senior IT management
- B) Respect for the creativity and abilities of others in the IT organization
- C) Review of completed projects to derive lessons learned
- D) Senior IT management communication of long term goals





What is the best definition of True North Principles or Values?

- A) True North refers to what the management of the organization should do, and is a key concept in Lean process improvement.
- **B)** True North principles refer to what the organization as a whole can do, and is a key concept in Lean process improvement.
- **C)** True North represents the constant focus that an organization should have on customer-centric aspects of value, and refers to what the organization could do to identify and implement improvements.
- **D)** True North works as a compass guiding the organization from the current state to where they want to be, and refers to what the organization should do to achieve this.

44 / 60

You have implemented the cascade mechanism in your department, and have significantly improved the level of communication and employee satisfaction in terms of their feeling informed and included. You have been asked to share your experience and approach at an upcoming leadership conference.

You have accepted the invitation and are trying to decide how to present what you have done, and the results that have been achieved.

What points are you most likely to make in your presentation?

- A) Your presentation has the following key points:
 - agendas were aligned between the meetings in the cascade
 - the cascade meetings were held on a regular basis to ensure a cadence calibrated to the need Benefits included a perceived and actual better flow of information.
- **B)** Your presentation has the following key points:
 - all identified issues are recorded, analyzed and prioritized
 - the cascade ran every other day to allow time to analyze issues between meetings
 - Benefits included employee satisfaction and high speed of issue resolution.
- C) Your presentation has the following key points:

- implementing the cascade communication requires simultaneous implementation of visual boards for overview

- agendas were aligned between the meetings in the cascade

- Benefits included a perceived and actual better flow of information.
- D) Your presentation has the following key points:
 the cascade meetings take place every day this is absolutely vital in order for the mechanism to
 - work - all identified issues are recorded, analyzed and prioritized

Benefits included employee satisfaction and high speed of issue resolution.





As manager of the IT Security Group, you have recognized the need to meet with your team and discuss team performance. You also see the need to apply Lean IT to the way the team functions.

You decide to construct a Change Story to compel your team to make a change. Employing the Pyramid Principle, you construct your story.

Which elements must be present in the Change Story?

- A) Burning platform
 - Key questions
 - Countermeasures
 - PDCA
 - The Reason why
- B) Change or die statement
 - What if statement
 - The Answer
 - Motivating factors
- C) Compelling reason for change
 - Open issues
 - Solutions
 - Motivating factors
- D) Situation or complication
 - Key Questions
 - Answers
 - Motivations

46 / 60

You have been asked to implement catch-ball communication in your department. You think it is a great idea, make a start straightaway.

What would be the **best** example of catch-ball communication in order to obtain the intended benefit?

- A) You engage your team leaders in the catch-ball communication as you feel that there needs to be some managerial overview and decision-making power involved in the communication to ensure that it brings as much value as possible. Your team leaders engage very actively in the dialog and most of them personally select and 'catch specific balls' of ideas you send out. Your dialog with them is very rich and you examine different angles in regards to strategy, personnel issues/situation etc. This mechanism gives you great input regarding the deployment of future strategies.
- B) You have many great ideas for implementing the vision for the department and organization, so you send out your thoughts to the entire department for them to reflect on (for them to 'catch the ball' essentially). Some of them provide you with feedback and input (they throw the ball back to you). You continue with similar dialogs with those of your employees who decided to 'pick up the ball and play' with you.
- **C)** You send out a couple of your ideas to some of your employees for input (you 'pass the ball' to them). They all 'catch and return the ball' to you, to continue the dialog. The final result is that several improvement options are identified which represent a blend of both perspectives.
- **D)** You develop a number of ideas for improving employee satisfaction and ask your manager help you choose the best course of action.





As a Lean IT leader, you have decided to apply Visual Management throughout all groups within IT.

For the Application Development group, what is the primary reason for having standardized Visual Management?

- A) Ensuring that all information is visible in order to minimize unnecessary interruptions.
- **B)** Forming the physical environment for effective top-down communication through the Application Development organization.
- **C)** Gaining clarity of the product backlog, seeing the Flow of work, and complying with the Definition of Done.
- D) Knowing the type of requests that are coming in, and increasing reliance on self-service facilities.

48 / 60

What is the most important focus when transforming to Lean IT?

- A) Focus on cost advantages
- B) Focus on Customer Value
- C) Focus on Shingo principles
- D) Focus on strategic gains

49 / 60

During the transition to Lean IT, there are 3 broad phases that IT leaders and their teams must go through.

Which phases are these?

- A) Farewell
 - Letting Go
 - Moving forward
- B) Old Ideas
 - Reassure
 - New Ideas
- C) Planning
 - Implementing
 - Next Steps
- D) Showing Respect
 - Adopt
 - Celebrating Success





Transforming an IT organization to a Lean IT organization can be done in three stages. Each of the three stages can be seen as a learning level.

One of these levels is often approached with skepticism as to the ability of the new way of working to deliver results and benefits.

Which level is this?

- A) Know how
- B) Know what
- C) Know when
- D) Know why

51 / 60

In which role does a Lean IT coach help the Lean IT Leader to stay on track and to stick to the commitments they have made?

- A) Conscience of the IT organization
- B) Experienced Lean IT consultant
- C) Lean IT Kaizen Lead
- **D)** Member of the guiding coalition

52 / 60

In the context of organization, should the Transformation to Lean be top-down or bottom-up?

- A) Top-down
- B) Bottom-up
- C) Both at the same time
- D) Top-down initially, followed by bottom-up





You are the CIO of an IT organization with 100 employees and you are planning a Lean IT Transformation. This is your plan.

As the change needs to be driven from and anchored at an organizational level, you establish a program for that first, with the following activities in chronological order:

- 1. Lean IT Leadership
- 2. Lean Transformation
- 3. Continuous Improvement

While the Lean IT Leadership activities are running, you start the change at the team level, where your program consists of waves of transformation, with the following activities in chronological order:

- 1. Prepare
- 2. Organize
- 3. Analyze
- 4. Implement

As a lean transformation requires everyone to subscribe to it, you ask the employees to get involved with making the plans. Based on Rogers classification in Diffusion of Innovations, you identify the group of employees labeled as 'Late Majority' and 'Laggards' in order to ensure that they get a little extra attention and understand that this is the path chosen for the organization. You ensure that the employees and managers working on the team-level initiatives are encouraged to hand over their results to the relevant team leader, in order to ensure continuous improvement.

You take the plan to your coach. What feedback are you most likely to receive on your plan?

Question continues on the next page.





A) Your coach is appreciative of your plan and efforts, but challenges you on the following:
 You should not start before some activities in the Lean IT Leadership phase have been carried out, thus ensuring that the leaders are ready to support and encourage the transformation (as stated in Rogers Diffusion of Innovation model).

- You should include the 'organize' activity in the Lean Transformation track in the organizational level, so that the team-level initiatives are resourced correctly and 'ready to go' once they have been initiated.

- You need to ensure that the teams working on team-level initiatives hand over their results to the relevant team leader, in order to ensure continuous improvements.

B) Your coach is appreciative, but challenges you to:

- Not start the team activities before the Lean IT Leadership activity is complete, thus ensuring that the leaders slowest to adopt change (as stated in Rogers Diffusion of Innovation model) are given the time to adapt.

- Use the following way of organizing your team initiatives - Prepare, Analyze, Implement, Improve. - Ensure that the creation and use of a Change story is clearly positioned in the plan.

C) Your coach likes the division between the organization and the team level, but challenges you to improve integration between the two by:

- Encouraging the employees to start the team-level initiatives from the start of Lean IT Leadership. This will allow them to gain more knowledge themselves earlier on in the program.

- To get a better commitment among employees, your coach challenges you to appoint at least 2 employees in the 'late majority' and 'laggards' categories to each project team on the team level (as defined by Rogers in his Diffusion of Innovation model).

- Getting both managers and employees to start solving problems together as soon as possible.

D) Your coach praises you for the plan, and has only a few suggestions for improvement:

 Ensure that employees are more involved in the Lean IT Leadership activities from the start.
 Include more focus on standardization in your program, ensuring that you have a standard approach to documenting what initiatives to run, how to run them, and how to display results. He suggests using the A3 method for this, as well as visual management.
 Use Nemawashi before attempting to start the Lean IT Leadership stop.

- Use Nemawashi before attempting to start the Lean IT Leadership step.





You are the CEO of a large hosting company, and have decided to launch a new vision for where the organization needs to be in 3-5 years. You presented the vision at the last employee gathering a couple of months ago, and generally people seemed to like it and find it motivating. You received a couple of questions on the vision at the gathering, but have not heard much challenge of it since. You have asked your managers to start analyzing what needs to be done in order to realize the vision.

The vision you presented at the gathering was:

We are in a commodity business, where the way to survive and win is to have better quality and better prices than the competition. However, the market is shifting towards a greater focus on availability and scalability.

In order for us to continue to prosper, we need to answer the call of the market, and build a more scalable platform that we can offer to our clients.

What would you say are the **largest** barriers for success which will prevent this vision being realized?

- A) The vision is not very motivational in terms of creating a guiding coalition. There appears to be no real plan or resolve behind it, and it is quickly forgotten by the employees since most of them barely hear about it again for quite some time.
- **B)** The vision needs to be communicated more often and to a wider audience, both in terms of what it contains and in terms of progress, who is involved etc. A vision which is not communicated will not be realized.
- **C)** The vision needs to communicate clearly how barriers will be identified and what will be done to remove them, something this vision lacks.
- **D)** The vision should have been developed at the meeting and not just presented there. Employees need to be an integral part of creating strategies and visions in order to understand and implement them.

55 / 60

You are leading a Lean IT Transformation in your organization and have finally been released from your other projects to work on this.

You need to make an A3 for the project to ensure that it is correctly scoped, aims at the correct desired results etc.

You decide to use a 'proposal A3' format for this purpose and begin filling it out.

Which approach is the best way to get the A3 completed and approved?

- A) With the involvement of the critical stakeholders covering the full program, create an A3 which holds different scenarios for the proposed best course of action to implement the Lean IT Transformation.
- **B)** Create separate proposal A3s for the organizational and team level of the project, thus ensuring that each level has each its own value proposition.
- **C)** Divide the Lean IT Transformation project into phases, and complete the proposal A3 with your stakeholders for the first phase. Complete one A3 for each phase, before starting that phase.
- **D)** Gather all the information you can from previous management decisions, any analysis you can obtain, and observations, and then make a balanced proposal A3 for approval in management.





After a couple of months of working to implement visual management using daily, weekly and improvement boards, you are making a status report of your progress and results.

Here is an account of the related activities over the past couple of months:

- You launched the vision to implement visual management at a team meeting.

- You gained Senior Leadership buy in, endorsement and commitment from all the critical stakeholder groups.

- You invited employees in to help you make a design and a plan. None of them had heard about the initiative before but, after a while, they saw the power and value of it.

- You did not have whiteboards available for the boards, so you used huge pieces of paper for the purpose until you were able to get proper boards.

- There seemed to be no timeslot where everybody was able to attend, so you chose a timeslot where most could attend.

- After 2 weeks of working with the boards, you found that progress and value created from the boards was relatively good, so you decided to add more content to the daily board. This disrupted the success you had already accomplished as people were not ready for more. So you rolled back the new additions and continued as you were.

After about 4 weeks of working with the boards, you found that some of the employees stopped prioritizing the meetings. The board manager (a motivated employee who had been part of defining the boards to begin with) was unable to ensure employee attendance, so he escalated to you.
After about 6 weeks of working with the boards, you found that attendance was sufficiently good, the whiteboards you had ordered had finally arrived, and people seemed motivated to use the boards. So you invited everybody to a celebration cake.

Which of the following **best** describes the critical errors of organizational change management you made in your implementation?

A) - You did not communicate the vision sufficiently. It needs to be communicated often and be followed by visible actions (which you did ensure).

- You did not succeed with removing critical obstacles. Everybody must attend every meeting, and it is up to you to ensure that everybody else's calendar allows you to implement the vision you have.

B) - You did not create enough of a guiding coalition around your vision. There needs to be a 'critical mass' of people (leaders and employees) understanding and supporting a given vision for it to be implemented.

- You did not communicate the vision strongly enough. Talking about it a couple of times does not give it sufficient support.

C) - You did not succeed with removing critical obstacles, as you did not ensure proper boards from the beginning.

- You did not do sufficient systematical planning, since you had to implement more complexity onto the board design too early (2 weeks in).

D) - You did not succeed with removing critical obstacles. Not having proper boards to work with from the start really made a bad first impression.

- You did not do sufficient systematical planning, since you had to implement more complexity onto the board design too early (2 weeks in).





57 / 60 On which model is the A3 method based?

- A) DMAIC
- B) Kaizen
- C) PDCA
- D) SIPOC

58 / 60

You need to find a good way to describe ideas and improvement projects, and have been guided towards the A3 method. You have not worked with this method before and you are unsure of exactly which competencies you need to use it. You also do not know how it can help you to tell the right story and communicate the goals and content of your intended project.

Which of the following best describes how the A3 method supports you in your aim?

- A) It is important that you can understand the problem, analyze its causes, and are able to present it in a visual manner. A3 helps you to communicate your intentions based on a strong description of the root causes and the group of employees that are impacted by the problem.
- **B)** Strong communication requires a strong story line which describes the underlying situation and the strategy to improve it. Completing an A3 mainly requires common sense, a structured approach and good writing skills.
- **C)** You must understand the problem and summarize it. Analyzing and synthesizing the problem is also important. A3 can help to make your presentation visual, communicate the problem, and identify which course of action you propose.
- **D)** You need a strong analytical approach to understand the root causes and the ability to synthesize a potential solution. A3 can help you make the situation and problem description specific. This will help you gain the support and understanding you need.

59 / 60

You are embarking on a Lean IT Transformation in your organization and are concerned that your people do not understand the vision, and do not become actively involved with the change.

Which step or steps can you take to increase the likelihood that people grasp the vision and become deeply involved in the change?

- A) Create official roles and titles which give people responsibility and authority to make the change stick.
- B) Creative monetary incentives for those people who take an active role in the Transformation.
- **C)** Repeat the vision frequently and provide specific activities for people to apply Lean IT as part of daily work.
- **D)** Train your people frequently by running Lean simulations and contests in order to make Lean IT fun.





Dr. Kaoru Ishikawa described the working of Hoshin Kanri as follows:

"Top managers and middle managers must be bold enough to delegate as much authority as possible. That is the way to establish respect for humanity as your management philosophy. It is a management system in which all employees participate, from the top down and from the bottom up, and humanity is fully respected."

What are the three correct key characteristics of Hoshin Kanri?

- A) 1. Short term focus on direct results.
 - 2. Focus on bottom-up movement to create widely accepted improvements within the company.3. Correct responsibilities and accountabilities throughout the organization need to be ensured.
- B) 1. As long as results are achieved correct responsibilities and accountabilities are less important.
 2. Consultation and decision-making is a mainly a management task.
 3. Hoshin Kanri has both top-down and bottom-up components. The top determines the overall direction. The bottom-up aspect is a Flow of information so that decisions can be made at the right level concerning the achievement of the results.
- **C)** 1. Hoshin Kanri is both top-down and bottom-up. The top-down aspect is a Flow of information. The bottom-up aspect is all about setting the overall direction so that decisions can be made at the right level concerning the achievement of the results.
 - 2. People development is more important than the results.
 - 3. Three to five 'breakthrough' objectives need to be achieved every quarter.
- D) 1. Long term focus with a strong link to guiding principles.
 2. Achieving results through people development.
 3. A process in which all levels of the organization are involved through consultation and decision-making.





Answer Key

1 / 60

What is not one of the Shingo Guiding Principles?

- A) Create Constancy of Purpose
- **B)** Lead with Humility
- **C)** Think Systemically
- D) Walk Around
- A) Incorrect. This is one of the four guiding principles of Shingo.
- **B)** Incorrect. This is one of the four guiding principles of Shingo.
- C) Incorrect. This is one of the four guiding principles of Shingo.
- **D)** Correct. This is the principle of going to the Gemba. The four guiding principles of Shingo are: Respect Every Individual, Lead with Humility, Create Constancy of Purpose and Think Systemically.

2 / 60

Which step in the development 'Lean Leadership Development Model' by Jeffrey Liker is considered the **most** important?

- A) Coach and Develop Others
- **B)** Commit to Self-Development
- C) Create Vision and Align Goals
- D) Support Daily Kaizen
- A) Incorrect. This is also an important step, but it cannot be taken without true commitment to Self-Development.
- B) Correct. The most important step for a Lean leader is to make the explicit commitment to develop.
- **C)** Incorrect. This is also an important step, but it cannot be taken without true commitment to Self-Development.
- **D)** Incorrect. This is also an important step, but it cannot be taken without true commitment to Self-Development.

3 / 60

In terms of systems, what is the meaning of holistic thinking?

- A) Being aware of the relationships between components.
- **B)** Focusing on creating a vision for the near or distant future.
- C) Realizing the full value of operational excellence across the organization.
- D) Understanding how changes ripple across the value stream.
- A) Correct. This is the meaning of holistic thinking.
- B) Incorrect. This is dynamic thinking.
- C) Incorrect. This is the effect of leaders moving into systemic thinking.
- D) Incorrect. This is closed-loop thinking.





IT is seen as a supporting and sometimes non-core or non-essential function.

Why is this assumption flawed?

- A) IT is often one of the largest departments in the organization and provides a core service to all.
- **B)** IT often provides services to the external market in order to recover costs.
- C) Most if not all core business functions are automated by IT systems and services.
- **D)** The IT department usually manages its own finances because of the complexity of IT finances and perceived independence.
- A) Incorrect. The size and objectives of the IT department has no bearing on its overall contribution to the success of the organization.
- **B)** Incorrect. The fact that IT provides services direct to the external market solely for the purpose of cost recovery is usually transparent to the rest of the organization.
- **C)** Correct. The IT services are critical for business continuity, IT staff knowledgeable about the business processes is essential to the management of change.
- **D)** Incorrect. This is a true statement but has no bearing on the fact that IT is sometimes viewed as a non-core support function.

5 / 60

What are the differences between the Lean IT Leadership approach and the Level 5 Leadership approach, described by Collins?

- A) There are many differences, two of which are:
 The Level 5 Leadership approach often has more of a political or hierarchical touch, and is very focused on exercising control and power.
 The Level 5 Leadership approach is more commonly applied in a western culture, whereas Lean IT Leadership is more commonly applied in eastern cultures.
- B) There are no differences. The two terms are actually synonymous and the term 'Lean IT Leadership' has been created based on the work of Jim Collins.
- C) There are no significant differences. The Lean IT Leadership approach and the Level 5 Leadership approach both advocate strong personal leadership, modesty, humility, respect, focus and systemic and structured thinking.
- D) There are some differences. The Level 5 Leadership approach is more focused on ensuring a stern strategic focus, whereas the Lean IT Leadership approach focuses more on respect, standardization and accountability.
- A) Incorrect. Level 5 leadership is not identical with what may be termed a "western leadership style". Actually it much more resembles Lean Leadership.
- **B)** Incorrect. The terms are not synonymous. Although they cover much of the same approach to leadership, they do have different origins and thus different expressions.
- **C)** Correct. There are no significant differences.
- **D)** Incorrect. Level 5 and Lean Leadership are actually more alike than that. They focus on very much the same things: respect, professional will (create constancy of purpose) and systemical thinking.





An IT department is categorized as 'System/Service Focused', indicating a level of maturity where infrastructure and applications work together in the eyes of the customer. However structurally the Application and Infrastructure organizations have very limited integration and few if any shared processes. At this level of maturity the IT organization perceives just two forms of Flow both of which are recognizable by the end-user.

What are the forms of Flow perceived by the IT organization?

- A) Plan & Build, and Run
- B) Plan & Build, Service Delivery
- C) Plan & Build, Service Management
- D) Run, Service Management
- A) Correct. Plan & Build and Run are the two forms of Flow perceived by IT.
- **B)** Incorrect. Service Management is not a form of Flow recognized by IT.
- C) Incorrect. Service Delivery is not a form of Flow recognized by IT.
- D) Incorrect. Service Management is not a form of Flow recognized by IT.

7 / 60

How frequently should an activity such as Budget Review be included in a Leader Standard Work?

- A) Daily
- B) Weekly
- C) Monthly
- D) Quarterly
- A) Incorrect. Daily standardized work activities include: attending day start(s), checking the previous day's performance reports, Gemba walk, individual coaching sessions, Daily Kaizen activities, review resource planning.
- **B)** Incorrect. Weekly standardized work activities include: reviewing performance measures, attending week start(s), team coaching sessions, weekly improvement activities (e.g., processing issues on the improvement board), review week resource planning.
- **C)** Incorrect. Monthly standardized work activities include: activities to align goals, supplier meetings, customer meetings, improvement Kaizen, update longer term resource plan.
- **D)** Correct. Quarterly/yearly standardized work activities include: non-routine activities like updating the service catalog and setting up new service level agreements.





How can we attain Flow Efficiency?

- A) Create a chain of specialists in the process.
- B) Focus on more variation in the workforce.
- C) Focus on the unit of work that is processed.
- D) Use resources as efficiently as possible.
- A) Incorrect. By creating a chain of specialists we only optimize each step of the flow. This will certainly cause time delays.
- **B)** Incorrect. Introducing more variation creates an unbalance. As variation increases, the company is forced to choose between optimizing either Flow or resource efficiency.
- **C)** Correct. The key is to focus on the flow of the unit of work (Single Piece Flow), which leads to higher customer value on a long-term basis. The customer is only interested in an affordable, but functioning end-product that is delivered on time.
- **D)** Incorrect. Concentrating on people and inventory to improve efficiency will be at the expense of Flow efficiency.

9 / 60

What is the first step in the adapted PDCA learning cycle for personal improvement of a Lean leader?

- A) Advance
- B) Check
- **C)** Do
- D) Prepare
- A) Correct. This is the first step: We select the job that fits the leader's next development step, to advance learning and growth.
- **B)** Incorrect. This is the fourth step: the leader discusses his/her leadership experiences with the coach. This is often done during the 'doing' so that the leader can reflect, learn and apply the lessons learned.
- **C)** Incorrect. This is the third step: The leader leads and develops others, to achieve challenging goals. This is where the practical experience of leading is tested.
- **D)** Incorrect. This is the second step: the leader must understand gaps between the current situation and True North vision by going to the Gemba and gaining deep understanding of what is actually happening there. Also, the leader must build relationships with people on the work floor.





In the context of a highly functional team, what is a characteristic of a 'safe environment'?

- A) Criticism is encouraged as a learning tool.
- B) Individual team members are able to speak freely.
- **C)** Team leadership is rotated on a regular basis.
- **D)** The team operates in a risk-free environment.
- A) Incorrect. This is not a characteristic of a safe environment. Criticism is not welcome in safe environments.
- B) Correct. This is what is meant by a safe environment.
- **C)** Incorrect. This is not the meaning of a safe environment. A safe environment can be created with a single leader. There is no need for rotating the leadership.
- **D)** Incorrect. This is not the meaning of a safe environment. Safe is not meant in the sense of risk-free, but in a sense of creating an environment that fosters trust, which in turn leads to proper accountability mechanisms.

11 / 60

Which key tool for Lean Leaders helps to identify where issues and deviations are happening in the Leader's work?

- A) Gemba Walk
- B) Shu-Ha-Ri
- C) Standard work list
- D) Visual Management
- A) Incorrect. A Gemba walk means that the leader goes and sees what is actually happening on the work floor. It is one of the three key tools.
- **B)** Incorrect. Shu-Ha-Ri is not one of the three key tools, but the guiding principle for the process of self-development.
- **C)** Correct. The Standard Work List is the tool that helps to identify where issues and deviations are happening in the leader's work.
- **D)** Incorrect. Visual management ensures that facts are collected and presented such that they are visible for everyone. It is one of the three key tools.

12 / 60

Of which routine of Leader Standard Work in IT is 'Processing issues on the improvement board' a part?

- A) Activities to align goals
- B) Daily Kaizen activities
- C) Weekly improvement activities
- D) Improvement Kaizen activities
- A) Incorrect. 'Processing issues on the improvement board' is part of the weekly improvement activities.
- B) Incorrect. 'Processing issues on the improvement board' is part of the weekly improvement activities.
- C) Correct. 'Processing issues on the improvement board' is part of the weekly improvement activities.
- D) Incorrect. 'Processing issues on the improvement board' is part of the weekly improvement activities.





As a team leader you have developed a good way of conducting performance review sessions with your employees. Both they and you get good value and feedback from the sessions. In fact your senior manager has asked you to say a few words about your approach to performance evaluations at your next management meeting.

For your presentation you have to put to word, what it is that you do exactly, which gives you a great opportunity to reflect on your performance and tasks. In preparing for the meeting you come up with some improvement ideas, but you are not sure whether to include them in the presentation or not. The ideas may not work, but they could potentially improve the value of the performance review sessions tremendously.

What is the **best** approach here?

- A) Ask to be given a timeslot on a later management meeting, giving you time to test some of the improvement ideas that you have for your standard. This ensures that the practice presented to the other team leader is an improved version.
- **B)** Present your current practice, which you know works. Ensure you have a timeslot on the next meeting to reflect, to hear improvement ideas from your colleagues and to share your ideas for improvement.
- **C)** Give a presentation for your colleagues on your current practice. Show your improvement ideas as a separate item, to be discussed with their improvement ideas and reflections in a later management meeting.
- **D)** Ensure that the presentation contains both your current practice and your improvement suggestions. Insist on a timeslot in the next meeting as well, to revisit and verify your improvement ideas with the other team leaders.
- A) Incorrect. You should not stop sharing your current practices and standards because they are under improvement. Your colleagues need to go through their phase of learning the kata (Shu) at some point in time You can always share improvements at a later date (Ha).
- B) Correct. The way to go about this is to present the best version you know. Your colleagues need to learn the kata (Shu) The next meeting will allow colleagues to discuss their findings with the kata and suggest improvements based on their experience (Ha). It is possible that a completely new kata is developed (Ri).
- **C)** Incorrect. The way to go about this is to present the best version you know. Discuss the standard with colleagues after they have had the opportunity to practice the standard (Shu). Only then do we engage in improving the standard (Ha), or possibly move on to a completely new standard.
- D) Incorrect. Since this is the first time that your colleagues are confronted with your practice, they need to learn the kata of this particular behavior (Shu). Presenting them with improvements at this stage will take away focus from learning the current best practice. In the follow-up meeting, you should focus not only on your improvements but also those of your fellow team leaders (Ha).





You need to get your day under control; you are being pulled in all directions, leaving you no time to prepare for meetings or get things done. Particularly you sense that there is no time for an improvement focus.

So, you decide to apply Leader Standard Work on your own leadership activities.

What are the most important things to focus on when applying Leader Standard Work?

- A) When establishing Leader Standard Work, it is important to:
 - 1. Identify tasks, which are repetitive.
 - 2. Analyze the best way to do the tasks to achieve the desired outcome.
 - 3. Ensure that you discuss the priorities of the team in each team meeting.
 - 4. Make the Leader Standard Work visible to the employees, thus encouraging input.
- B) When establishing Leader Standard Work, it is important to:
 - 1. Identify tasks, which are repetitive.
 - 2. Identify tasks that can be delegated.
 - 3. List all one-off activities over the course of a couple of weeks, in an attempt to standardize them.

4. Adjust according to your level of management. The higher the level, the less repetitive the tasks you should be performing.

- C) When establishing Leader Standard Work, it is important to:
 - 1. Identify tasks, which are repetitive.
 - 2. Standardize repetitive tasks as much as possible.

3. Ensure that the Leader Standard Work is developed together with the team, in order to ensure that it matches their requirements.

4. Ensure that the Leader Standard Work focuses only on getting work done and not on driving continuous improvement.

- D) When establishing Leader Standard Work, it is important to:
 - 1. Identify tasks, which are repetitive.
 - 2. Standardize repetitive tasks as much as possible.
 - 3. Leave room for reminders, which are (one-off) tasks not yet standardized.
 - 4. Recognize that the higher the level, the less repetitive tasks you should be performing.
- A) Incorrect. The tasks must be identified and analyzed for the best way to do them. Discussing priorities with your team is generally a good idea, in order to share what is going on and give opportunity to participate and take responsibility, but it is not part of Leadership Standard Work as such. Making it visible, as stated above, is a good idea, but it should actually be created with the team. Not just made visible for comments.
- B) Incorrect. The tasks must be identified, and if any of them can be delegated that is fine (but it is not part of the purpose of Leader Standard Work). In regards to one-off activities, they should not be attempted to be standardized as it is a waste of time. They only appear once. However, on-off activities, may actually be quarterly or yearly activities, which CAN potentially be standardized, so it is important to know the difference. Finally, research from Liker, 2004 confirms that the repetitive nature of leader's work decreases as the hierarchical level increases.
- C) Incorrect. The tasks must be identified and standardized to the extent possible. It is also a good idea to develop the Leader Standard Work together with the team, in order to ensure a match to their needs. It is, however, important that the Leader Standard Work includes focus on both getting work done as well as driving continuous improvement. Both are important parts of the Leadership responsibility.
- **D)** Correct. The focus areas listed are correct, and research from Liker, 2004 confirms that the repetitive nature of leader's work decreases as the hierarchical level increases.





You have managed an Enterprise Resource Planning (ERP) development team for 3 years, and have reached the point where the daily development runs smoothly, and the system performs well. Now you want to focus on your own ability as a Lean IT Leader. You need to dig deeper within yourself in order to improve your own performance and the team spirit. You have decided to become a Lean IT Leader.

What do you most need to focus on in order to become a Lean IT Leader?

- A) You need to understand and connect to the True North of the organization. You know that you will face challenges, so you need to find a coach to help you reflect, learn, identify learning cycles, and practice your leadership in order to develop.
- **B)** You need to ensure that you create a good learning environment for yourself as well as for your team. You need the trust of your team, a Kaizen mindset and the correct visual tools to improve. This will allow you and your team to develop together.
- **C)** You need to find a coach to help you reflect, and then you need to find out what it is that you have to learn, with your coach supporting your efforts. You need to identify your blind spots. When you know your blind spots, so that you can start working on them.
- **D)** You start with reading about Lean IT Leadership, so that you better understand the principles. With your background, you feel quite comfortable that you are able to apply some of what you learn from the literature right away, allowing you to get started on practicing and learning.
- A) Correct. In order for you to become a Lean IT Leader, you need to: 1. Find a deep commitment as well as a connection to True North, 2. Have a coach, 3. Practice.
- B) Incorrect. Although being aware of creating a good learning environment for both you and your employees is an important ingredient to becoming a good Lean IT Leader, it is not enough. You also need to: 1. Find a deep commitment as well as a connection to True North, 2. Have a coach, 3. Practice (which you have laid the groundwork for already in setting up learning environments for you and your employees).
- **C)** Incorrect. Getting a coach to help you reflect and learn is key, but although identifying your blind spots is important and must be done you first need to ensure that you understand True North and feel committed and connected to it.
- **D)** Incorrect. Although reading up on literature may be a good idea to supplement your other efforts, it is not sufficient. In order to become a Lean IT Leader you need to: 1. Find a deep commitment as well as a connection to True North, 2. Have a coach, 3. Practice (which you have already planned to do)





A team of IT Change Managers is experiencing tremendous work pressure, due to meetings regarding their change requests.

The meetings always end later than planned and take too much time. Furthermore, it appears that many topics and changes are discussed several times with the same department, but in different meetings.

What would be a Lean improvement or action to improve these meetings?

- A) Maximize the time spent on Change meetings.
- B) Set a limit to the amount of changes registered in a month.
- C) Set a limit to the amount of participants in the meetings.
- D) Find and agree on a way to standardize meetings.
- A) Incorrect. Done correctly and standardized, change meetings will use up the time needed
- **B)** Incorrect. It could be an option when after standardizing the meetings the same problem keeps existing. However to meet the customer-demand, sufficient capacity should be there to handle the Change requests. First the waste needs to be eliminated.
- **C)** Incorrect. Again this could be a possible solution if after standardizing the problem still exists. But first start with standardizing and eliminating waste.
- D) Correct. Meetings that are not standardized fail to reach their intended goal, because distractions cause the participants to deviate from the purpose of the meeting. Routine meetings are performed in a standard way, to increase the efficiency of time spent on addressing the agenda of the meeting, thus reaching its goal. The standardization of the meeting increases the ability of the attendees to focus on the important aspects of the meeting, such as: decision-making, communicating decisions, or agreeing on distribution of work. The same goes for the connection between meetings if not synchronized.





For the last couple of months you have experienced an escalation of conflict and attitude from one particular employee. This person appears to resent most of the things you say and do, and has lost focus and productivity. Something needs to change, as the situation is seriously impacting your focus and the results and atmosphere within the team. Last week, you had a meeting with HR to understand your position in case you need to dismiss the employee. This week you have a meeting with the employee to discuss performance and improvement.

What would be the most important things you need to do and consider to prepare for this meeting?

- A) Discuss the matter with your manager and state that the situation cannot continue. Secure the mandate to proceed with letting your employee go, in order to solve the issue. Prepare for dismissal, as you have ample proof of low performance.
- **B)** Ensure that you are absolutely certain what you really think about the matter and what you would like to see happen at the meeting. Ensure you understand who has done and said what over the last couple of months, and who should take responsibility in the matter.
- **C)** Ensure that you can discuss first-hand experiences from the 'Gemba' having reflected on your own responsibilities and accountability in the matter. Prepare to understand the root cause of the situation and reflect on the learnings for you as a leader.
- **D)** Ensure that you know exactly what has gone on and what people have experienced in relation to the matter. It is important that no action is taken before the root cause is known so you need to ensure that the employee is allowed to vent frustration, tell their stories and react to the situation.
- A) Incorrect. Are you sure that you have applied your problem solving skills to truly understand the root cause? You, as the person's leader, are accountable for the situation coming to this level of frustration, and as such, it is your responsibility to try to find a good solution. Not saying that letting the person go cannot be a good (or at least right) decision, but only in the light of the leader being accountable and understanding the root cause.
- **B)** Incorrect. It is less important to find out who did what and thus who is to blame for what. Furthermore you need to not decide on a solution before you know the cause of the problem. Applying structured problem solving on the matter including your own leadership is much more important.
- **C)** Correct. You need to ensure that you do not jump to conclusions and that you are fully aware of your own responsibility and accountability in the matter. No matter what the cause and things that have taken place, you as a lean leader have some sort of accountability for the matter.
- D) Incorrect. Just talking about the situation, hearing what has happened and letting everybody vent will not improve the situation. At best it may improve some of the symptoms of the issue. You need to make sure that you stay accountable for the situation. To make an improvement on a situation like this, you need to be sure to apply your problem solving abilities focused on Gemba (what has actually happened).





You have been trying this 'Lean IT Leadership' thing out for a couple of months now, and you are getting a bit frustrated. Most of the time, your team finds your daily Gemba walks to be more disruptive than supportive to their work. They are getting a bit annoyed with the interference. You spend around 15-20 minutes on your Gemba walk every day, and make sure that you 'visit' all teams and all stations. The rest of the day you are in your usual meetings and handle the usual issues that come up. You ask your Lean coach for advice.

What is most likely to be the advice your coach gives you?

- A) To discuss with your employees how to make the conversations you have during Gemba walks more value adding than disturbing.
- **B)** To observe well before you challenge your employees on their practice or raise issues. This way you ensure that you do not ask questions for the sake of asking and that your discussions with your employees are adding value.
- **C)** To ponder what the root cause of the problem is. Why are the Gemba walks not yielding the desired result? Once you have found the root cause, your coach will ask you to change what is wrong, so you can improve.
- **D)** To ensure that you observe more before you ask questions. In addition, ensure that you do not cloud the employees' perspective by bringing too many observations and opinions to the discussions.
- A) Correct. The need for value added discussions and challenges on Gemba walks is clearly there, since the "old habits" of discussing them in meetings and going to your desk for advice is still there. Everybody needs to work on using Gemba walks for these types of talks.
- **B)** Incorrect. This approach will take your Gemba Walks closer to being just Gallery walks where you just wander about looking at what your employees do.Both you and your employees have a responsibility to make the conversations you have during Gemba walks value added.
- **C)** Incorrect. Looking for the root cause to the problem is a great idea, but analyzing it and finding a solution to it all by yourself with no interaction with Gemba is not advisable. You may be accountable for making sure that the Gemba walks are value adding for everybody generally, but that does not mean that you alone are responsible for taking action.
- D) Incorrect. You need to make sure that the dialogs you have on your Gemba walks are actually value added, and do not become too bland. You are accountable for them being value added. That does not mean that you have the sole responsibility for making it happen. Your part in achieving this is to go and see, ask why and show respect. Your employees need to engage constructively in the conversations and problem solving, bring up issues that need attention and be available for conversation.





What action defines the purpose of Genchi Genbutsu?

- A) Decide whether the work is done in the right way.
- B) Ensure that problems cannot remain unseen.
- C) Look and guess the reason why things happen.
- **D)** Observe what is happening without judging.
- A) Incorrect. The Genchi Genbutsu principle implies that this is what a leader should not do at the Gemba.
- **B)** Incorrect. This describes the principle of Jidoka.
- **C)** Incorrect. The Genchi Genbutsu principle implies that this is what a leader should not do at the Gemba.
- **D)** Correct. This is correct. Genchi Genbutsu means going to the source and truly see what is happening there, without judgement.

20 / 60

What is the 5-Why analysis?

- A) A cyclic planning and management concept applied at the strategic level
- B) A simple root cause analysis that aims to question a situation through sequential causes
- **C)** An informal process of laying the foundation for a change or project that will require teamwork
- D) Opinions on the root cause of a problem offered by IT engineers during a Gemba walk
- A) Incorrect. This is not a description of the 5-Why analysis. PDCA cycles may be used for cyclic planning.
- **B)** Correct. This is the correct definition of the 5-Why analysis.
- **C)** Incorrect. This is not a description of the 5-Why analysis. 5 Why's are not an informal tool, but part of a formal investigation of a root cause.
- **D)** Incorrect. This is not a description of the 5-Why analysis. In the analysis, we do not just ask some engineers to give their opinions to compare.

21 / 60

Why is it important that IT Leaders take an active role in eliminating Mura and Muri?

- A) During a Gemba walk Leaders are in a position to tell their staff to do something about it.
- B) Leaders can look for patterns, forms, and habits at the Gemba.
- C) Leaders have the most influential and direct impact on issues related to Mura and Muri.
- D) Only Leaders should look for the reasons why something went wrong.
- A) Incorrect. The Gemba walk is all about stimulating people to address the problem of Mura and Muri, not ordering them to do something about it.
- **B)** Incorrect. This is not part of the 'Waste view' (looking for Mura and Muri) but part of the 'Kaizen view' when performing a Gemba walk.
- **C)** Correct. Mura and Muri are forms of waste they can control themselves, and therefore they should address the issues themselves.
- **D)** Incorrect. This is not part of the 'Waste view' (looking for Mura and Muri) but part of the 'Problem view' when performing a Gemba walk.





What is the purpose of a Gallery walk?

- A) To assess individual performance as part of an assessment program.
- B) To be visible to the employees within the leader's own department primarily for their own benefit.
- C) To determine individual contributions to departmental objectives.
- D) To meet with individual employees and discuss issues and problems.
- A) Incorrect. This is not the purpose of a Gallery walk. Assessing the employee should not be done during a Gallery or Gemba walk, but be the result of comparing output with the agreements made with an employee.
- B) Correct. When the Lean IT Leader goes to the Gemba to gain understanding, they are doing a so-called Gemba walk. This is in marked contrast to a gallery walk. The latter is a walk-around on the work floor that is more about the leaders being seen. The leaders give cursory attention to what is going on and are principally there for their own benefit.
- **C)** Incorrect. This is not the purpose of a Gallery walk. It is not necessary to identify the individual contributions of each employee on every project. Instead, Leaders regularly talk to their employees about the tasks assigned and the progress made.
- D) Incorrect. This is one of the objectives of a Gemba walk.

23 / 60

Which Lean tool does not help a Leader to spot a problem during a Gemba walk?

- A) Jidoka
- B) Kanban
- C) Time Metrics
- D) Value Stream Map
- A) Correct. Jidoka is a principle not a tool. It means giving the accountability to stop errors from going forwards in the process to the work floor once a problem is detected. Jidoka regulates the response to problems.
- **B)** Incorrect. Kanban serves as a system to detect abnormalities. If there is inventory without a Kanban attached something must be wrong.
- **C)** Incorrect. Time metrics presented visually can be a powerful detection mechanism if work cycles are paced to, for example, Takt time. Deviations can indicate a problem.
- **D)** Incorrect. Value Stream Map presented visually in the workplace is one method to allow a process to detect a problem and to stop.





You have just implemented a new tool for tracking tickets (an ITSM tool) at the Service Desks in the 5 regions you manage. A month after implementation, you are excited to get the first data on the distribution of tickets into different categories.

When you receive the report for the first month, you find that it is partially valuable and informative, and shows exactly some of the trends you were hoping it would show. However, in terms of distributing tickets into categories, you are unsure whether the results are consistent with the actual distribution. For instance, you know that there were many 'password reset' tickets last month in your own region but there are very few tickets with that category for your region in the report.

What is the best way forward from here?

- A) Your approach to this issue should be:
 - 1. Ask WHERE three times
 - 2. Put the problem statement in the top row of a 2 x 5 table
 - 3. Ask WHY five times
 - 4. Record a solution to each of the replies to your question of WHY

After this you should obtain input on validating and prioritizing solutions from your employees and lay the foundation for a solution.

- B) Your approach to this issue should be:
 - 1. Ask WHERE three times
 - 2. Put the problem statement in the top row of a 2 x 5 table
 - 3. Ask WHY five times
 - 4. Record a solution to each of the replies to your question of WHY

After this you start the process of Nemawashi to gain support for a solution.

- C) Your approach to this issue should be:
 - 1. Go to Gemba and observe
 - 2. Ask WHY five times
 - 3. Record a solution to each of the replies to your question of WHY

After this you should obtain input on solutions from your employees and lay the foundation for a solution.

- D) Your approach to this issue should be:
 - 1. Go to Gemba and observe
 - 2. Ask WHY five times
 - 3. Record a solution to each of the replies to your question of WHY

After this you should start the process of Nemawashi to gain support for a solution.

- A) Correct. You need to "Go and see" followed by the process for "5 WHY", followed by the "show respect" to get input on a solution
- **B)** Incorrect. The "go and see" and "ask why" was great, but the "show respect" in the form of Nemawashi is not. Nemawashi is NOT about obtaining consensus for a solution. You are gathering input and laying the foundation for a solution, but people do not need to agree on it actually!
- **C)** Incorrect. You need to not only go to Gemba first, but have the mission to uncover exactly WHERE the issue is seen. Furthermore, you need to ensure that you are using a standard for recording your findings so that you can analyze potential solutions for each reply to WHY. It may not be the last one that you end up wanting to implement.
- D) Incorrect. You need to not only go to Gemba first, but have the mission to uncover exactly WHERE the issue is seen. Furthermore, you need to ensure that you are using a standard for recording your findings so that you can analyze potential solutions for each reply to WHY. It may not be the last one that you end up wanting to implement. Finally, Nemawashi is NOT about obtaining consensus for a solution. You are gathering input and laying the foundation for a solution, but people do not need to agree on it actually!





Sitting at your desk, you sometimes wonder what you can do to make your daily Gemba walk even more beneficial than they already are.

During your walks you usually have great talks with your staff about issues they face, how they might go about fixing them and what you can do, on a management level, to help.

However, you want to be clear about how to apply the Jidoka principle to your Gemba walks.

What is the **best** way to achieve this?

- A) Ensure that each member of the team knows how to escalate and visualize any problem they find.
- **B)** Ensure that the expected and current status on important KPIs and processes are identified and visible.
- C) Ensure that you have KPIs for all important processes, so that you know the quality of the output.
- **D)** Implement an information dashboard, creating a special whiteboard for making problems visible.
- A) Incorrect. Implementing the Jidoka principle means that the process itself must be set up to show things out of the expected range. Defining what the expected range looks like and having a manner to display "out of the ordinary" which does not require synchronized communication is part of implementing a working Jidoka setup.
- **B)** Correct. The Jidoka principle means to be aware of and make visible the "andon cord" that is in question. The jidoka or andon must be part of the visibility of the Gemba walk!
- **C)** Incorrect. Not only do you need to make sure that the quality criteria are defined and that they are measured. But you also need to make sure to have a standardized and visual way of communicating when something is not up to the defined standards. Sometimes referred to as the Andon cord.
- D) Incorrect. Making problems visible is great, but you need to make sure that the Andon signal is part of the normal visual presentation of what is going on. So it needs to be part of the daily, weekly or improvement boards directly. Further, it is not enough to just focus on making problems visible. You also need to be sure that you have defined exactly what the expected performance ranges are for key indicators, so that you can spot when something falls outside the expected and accepted range.





You are the team leader on a server team, where you are currently focusing on improving the process for fulfilling requests for new standard servers. To do this, you use both actual observations and data from your ordering system. The data shows that you may have a major issue with the patch preparation process step, as the process time is triple what you expect and what appears to be reasonable. You are unsure what you should do to move your improvement efforts along.

What is the **best** approach from here?

- A) First, ensure that you know what you are looking at, then ensure you understand why the issues occur - what the root causes are. Showing respect to the people involved in the process, you then discuss the issues and potential solution with them. During the discussions you find that employees give good input and challenge their own processes. You do not always agree, but you get good input.
- **B)** First, ensure that you know what you are looking at, then ensure you understand why the issues occur what the root causes are. Showing respect to the people involved in the process, you then discuss the issues and potential solution with them. You find that some of the employees have gone ahead and made their own sub-procedures, so you use the opportunity to discuss the inadvisability of this.
- **C)** You need to see more data to understand the root causes of the issues, so you ask for a more detailed report from your ITSM tool. You then identify a hypothesis as to what the causes may be, and analyze them for validity. Once you have found significant data to support your hypothesis on root causes, you discuss potential solutions with the employees involved. They draw up the improved process themselves.
- D) You need to see more data to understand the root causes of the issues, so you ask for a more detailed report from your ITSM tool. You then identify a hypothesis as to what the causes may be, and analyze them for validity. Once you have found significant data to support your hypothesis on root causes, you discuss potential solutions with the employees involved. You draw up the improved process.
- A) Correct. You need to go to Gemba to see, ask why and to discuss potential solutions.
- B) Incorrect. You need to go to Gemba to see, ask why and to discuss potential solutions. However, when being in Gemba and discussing things with your employees it is important that you do so without judging. Most often people do not do inefficient things to be inefficient. They may not see the full picture, understand the full implications or other things. Going to Gemba to see means to see things as they are, not to judge.
- C) Incorrect. You need to go to Gemba to see what is going on. And although data from an ITSM tool can be very good to identify trends and show some part of reality, they do not cover the full reality and do not give you the answer to root causes. You need to go to Gemba to see, ask why and discuss potential solutions. Further to this, you need to ensure that the experts on the process who are the employees working in it every day are the ones making the most part of the design and implementation work themselves.
- D) Incorrect. You need to go to Gemba to see what is going on. And although data from an ITSM tool can be very good to identify trends and show some part of reality, they do not cover the full reality and does not give you the answer to root causes. You need to go to Gemba to see, ask why and discuss potential solutions. Further to this, you need to ensure that the experts on the process who are the employees working in it every day are the ones making the most part of the design and implementation work themselves.





Within your organization, your team of business analysts is responsible for producing requirement specifications for the IT aspects of business projects. Over the last year, you have observed a growing need for a standard approach to producing specifications, as well as improving the quality of deliverables from your team.

In order to ensure a standard approach to producing specifications, you need to get an overview of the skills and knowledge present in your team today.

What is the best way to go about working with skills and knowledge in your organization?

- A) You conduct interviews in order to map and analyze the skills and knowledge level of the employees in the organization. You present your findings to the managers of the employees so they can create a plan to correct the knowledge and skill levels that are lacking. Their managers will direct the employees' attention to improving their performance, and will increase the frequency of their performance review sessions.
- **B)** You identify the ten most important skills required to produce high-quality requirement specifications, and then map them by interviewing your employees individually. You ask their input for when you analyze for skills gaps and create a plan to improve the situation.
- **C)** You identify which skills and knowledge are required for solving and delivering the tasks that the organization works on. With the involvement of the team you map and analyze the skills and knowledge required within the organization. The overview is shared across the organization and a plan created to fill the skills and knowledge gaps.
- **D)** You map and analyze the knowledge that your employees have because this is the quickest way to ensure you can offer high-quality, uniform requirement specifications. Once this has been done, and you feel the department is ready for another 'initiative', you then proceed to map and analyze skills as well.
- A) Incorrect. You should map and analyze the skills and knowledge of the employees with the purpose of spotting opportunities for improvement. There will ALWAYS be discrepancies and gaps and it most often not due to low performance behavior as such. The attention for improvement should not be directed at individual who need to "pull themselves together". This is not to say a mapping and analysis of skills and knowledge may result in identification of employees who are not willing to perform well and improve, but it is not to be the aim of the effort.
- **B)** Incorrect. Although focusing on skills is important, and doing it via interviews et cetera is a fine way of doing it, you cannot omit focusing on knowledge as well. Skills and knowledge are both required input for producing requirement specifications of sufficient quality and homogeneity.
- **C)** Correct. You need to know what is required and then get the overview, and analyze for required action, together with the organization. First of all, they know more of the details of what you are looking at, and they are the ones you are "working on doing something with".
- D) Incorrect. You have to map and analyze both skills and knowledge in order to get the full picture. There are hardly any tasks which are performed without using both. For requirement specification, you definitely cannot omit looking at skills as well, as skills such as "interview technique", "analytical skills", and "facilitation" may be key to making a good delivery.





You find it challenging to ensure that you have sufficient resources available, for the volume and complexity of tasks, which your team needs to handle.

To gain an accurate understanding of the situation you need to perform an overview of skills and knowledge in your team, and have decided to do it the way you were taught in the Lean IT Leadership course you recently attended.

But what are the **best** ways of gathering this knowledge?

- A) You ask your coordinator to gather the overview for you, and present the findings. The coordinator will invite everybody to a workshop, where everyone's skill and knowledge levels will be determined.
- **B)** You invite your employees to individual interviews, where you discuss their level of knowledge and skill, as well as obtain their input on why the overall situation is the way it is.
- **C)** You allow the employees to interview each other, in order to ensure that the information is gathered in a dialog-based manner. Such dialog should ensure that they are not tempted to 'inflate' or 'deflate' their skill or knowledge level, as their colleague would challenge them to calibrate it correctly.
- **D)** You send out a questionnaire to all employees to fill out and return to you. This gives you a very good overview, which is easy to compile on the basis of the questionnaire feedback.
- A) Incorrect. Although the dialog based approach of a facilitated workshop is fine and gives all the information about why the levels of skill and knowledge are determined the way they are, as well as input to potential root causes to gaps you uncover when the picture is analyzed, you as a Lean Leader do need to be involved in the actual dialogs in order to get the full information about why things are the way they are. Remember, lean leaders are to spend most of their time (up to 60% some say) on improvement work, understanding Gemba et cetera.
- **B)** Correct. You need to get into a dialog with your employees about their skill and knowledge levels. You can do this either as part of a workshop or bilaterally, as in this example. The dialog will also give you valuable input on potential root causes for the overall level and gaps for the team.
- **C)** Incorrect. Dialog is the right way to get the information (either bilaterally or in a workshop form), but as a lean leader, you need to be the one half of the dialog, to get the full input on both the skill and knowledge levels, prerequisites for the levels being set as they are, as well as input to potential root causes to gaps you uncover when you analyze the picture for the whole team.
- **D)** Incorrect. You need to ensure that you collect the data via actual dialog (either bilaterally or in a workshops form) to ensure that both you and the employees understand the format. This information is actually quite sensitive and often connected with quite a lot of opinions and feelings.





Why is Daily Kaizen more closely related to the Kaizen mindset than Improvement Kaizen?

- A) Because Daily Kaizen brings together a group of people who have an interest in solving a particular problem.
- **B)** Because Daily Kaizen concerns a Leader's willingness to seek input, listen carefully, and continuously learn.
- **C)** Because Daily Kaizen means being constantly alert to major and minor issues that need to be addressed directly and quickly.
- **D)** Because Daily Kaizen means that reliance is on first-hand observation and learning to understand situations.
- A) Incorrect. This is a characteristic of Improvement Kaizen that needs a formalized approach on top of the Kaizen mindset.
- **B)** Incorrect. This is a characteristic of the Shingo principle 'Lead with Humility' that applies to the leader as a person.
- **C)** Correct. The Kaizen mind implies that 'Improvement is a daily task. We achieve systematic and continual improvement through a structured process. We approach any challenge by following the right process.'
- D) Incorrect. This is a characteristic of the True North value 'Go and See' or being at the Gemba.

30 / 60

What is a characteristic of a group, rather than of a team?

- A) Active problem solving
- **B)** Doing real work together
- **C)** Running efficient meetings
- **D)** Sharing leadership roles
- A) Incorrect. This is a characteristic of a team.
- B) Incorrect. This is a characteristic of a team.
- C) Correct. This is a characteristic of a group, not of a team.
- D) Incorrect. This is a characteristic of a team.





How can a Lean IT leader actively balance resource utilization in order to improve Flow?

- A) By helping to remove Muri
- B) By helping to remove Mura
- C) By performing a Gemba walk
- **D)** By using the 5-Why technique
- A) Correct. Muri means being overburdened, by the unreasonableness/ excessiveness of (often) policybased waste like unnecessary administrative procedures.
- **B)** Incorrect. Mura is caused by the variability of a process. Fine-tuning the process does not necessarily remove overburdening of resources by, for example, supporting administrative processes.
- **C)** Incorrect. Going to the Gemba is the first step for a leader to start detecting Muda or Waste, and Muri and Mura. Removal of waste is part of the follow-up actions.
- **D)** Incorrect. The 5-Why technique assists the leader in drilling into the actual problem areas on the work floor (Gemba). Removal of waste is part of the follow-up actions.

32 / 60

Patrick Lencioni describes a hierarchical model '5 dysfunctions of teams'.

Which of the following are levels of team development according to this model?

- A) Accountability
 - Group responsibility
- B) Commitment to each other - Skills contribution
- **C)** Goal-sharing
 - Achievement of objectives
- D) Teamwork starts with trust - Improvement through conflict
- A) Incorrect. Group responsibility is not a level of team development according to Lencioni.
- B) Incorrect. Skills contribution is not a level of team development according to Lencioni.
- **C)** Incorrect. Achievement of objectives is not a level of team development according to Lencioni.
- **D)** Correct. Teamwork starts with trust and Improve through conflict are both levels of team development according to Lencioni.





Everyone in an IT team is responsible for a similar part of the software or type of hardware.

What type of IT team is this?

- A) Customer-oriented team
- B) Project team
- C) Service-oriented team
- D) Technical team
- A) Incorrect. This team is focused on managing and/or delivering the services for a specific customer.
- **B)** Incorrect. Project teams are assembled to create new products and services, or simply to carry out large chunks of work. This is usually a virtual team with people drawn in from throughout the IT organization.
- **C)** Incorrect. This type of team is responsible for ensuring that one or more IT services are delivered seamlessly.
- **D)** Correct. This is the traditional form of a team within IT. The people in the team are all responsible for a similar part of the software or hardware.





You have learned that a Kaizen mindset is important for succeeding with Lean. You have managed your team for nearly 3 years, but have not yet really gotten anywhere with improvement work. Team members think of it as a bit of a nuisance: some of them refer to improvement as a disturbance to their work.

What is the best way to support changing the culture in your team towards a Lean Kaizen mindset?

- A) Analyze the trends and issues in the tasks that the team works on and allocate resources to work on what appear to be the most urgent of the issues you uncover. This ensures that some Kaizen action is taken.
- **B)** Demonstrate Lean behavior in your own Daily Kaizen work and focus on involving the right resources for Improvement Kaizen whenever the need for this approach arises. This ensures a balanced approach to changing the mindset towards Kaizen.
- **C)** Identify the current main issues and ensure that the best qualified resources are assigned to fixing them in a Kaizen way. This will send a clear message to your team that something is being done.
- **D)** Ensure that the team's Daily Kaizen work takes place, focusing the Kaizen effort on the easy improve opportunities. This sends a clear message to all employees of what to improve and what to ignore.
- A) Incorrect. You making yourself a resource in the analysis of issues is not a good approach for 2 reasons: 1. You are not Gemba as you are not directly involved in the daily work in the team, 2. You should be developing your staff's ability to see and analyze their own situation for improvement opportunities not doing it yourself.
- **B)** Correct. You lead by example and strike a balance between daily and Improvement Kaizen in order to show results. Through results Over time you will be able to change the culture more towards Lean and Kaizen work.
- **C)** Incorrect. You do not implement or support a Kaizen mindset as such, but adding your resources and focus to firefighting efforts. The Kaizen mindset needs to be "massaged in" as a part of the normal daily handling of tasks and issues and not as "something we do mostly when we really need to show action on specific problems".
- D) Incorrect. It is important to be able to focus on both daily and Improvement Kaizen. What will happen if you do not focus on Improvement Kaizen is, that more complex issues (Improvement Kaizen issues that cannot wait, in effect) will be handled as part of your Daily Kaizen, and thus your Daily Kaizen will not be able to give immediate focus to issues that can be solved as part of the daily work and without extra resource allocation et cetera.





You have been put in charge of permission management via Active Directory (AD) and hence you are also responsible for the process of handling requests for additions and changes to the current AD setup. The Client Management team has challenged you to improve the flow dramatically as clients are very unhappy with both the quality and speed at which the requests are handled. The task has historically been handled by several teams, each handling their own part of the AD setup, which has resulted in many different approaches to handling requests, and a jumbled structure within AD.

What is the **best** place to start, to ensure a better flow in the process of handling requests for additions and changes to the AD setup?

- A) Ensure that the work environment is uncluttered, identify and analyze the value stream to address waste, variability and constraints.
- **B)** Focus on increasing resource efficiency within the process to ensure that requests are turned around as quickly as possible.
- **C)** Identify the sources of poor quality in the requests delivered in order to see fewer re-opened requests (and hence fewer complaints).
- **D)** Start by setting up a Heijunka system to ensure that the flow of requests is directed correctly to each solution team.
- A) Correct. You need to ensure that the prerequisites for flow efficiency have been established.
- B) Incorrect. You cannot focus on resource efficiency before you have ensured that the prerequisites for flow efficiency have been established. So, first you need to: unclutter the work environment, control WIP (Work In Progress) limits, and ensure that you understand the source of complexity and thus variance
- **C)** Incorrect. Focusing on quality IS a great thing, but you cannot focus solely on quality before you have ensured that the prerequisites for flow efficiency have been established. So, first you need to: unclutter the work environment, control WIP (Work In Progress) limits, and ensure that you understand the source of complexity and thus variance.
- D) Incorrect. You should not start implementing solutions as the first order of business, but instead you need to focus on understanding the prerequisites for flow efficiency in the process. So, first you need to: unclutter the work environment control WIP (Work In Progress) limits, and ensure that you understand the source of complexity and thus variance.





The Application Development team has been reporting chronic issues which stem from a lack of visibility of Service Desk issues. The Service Desk hears of user issues with recently released application enhancements, but Application Development only hears about them weeks later after 'a crisis' occurs and they are told about it.

As a Lean IT Leader, what is the most effective way to address this situation?

- **A)** Apply Daily Kaizen by making Continuous Improvement part of the normal way the Application Development team operates.
- **B)** Apply the Daily Kaizen technique of team Daily Stand-up Meetings where the Service Desk can share user issues with the Application Development team and address root cause.
- **C)** Form a cross-functional team and hold a Kaizen event to understand the situation and develop a series of countermeasures to address the problem.
- **D)** These issues are a part of IT. A leader's role is to determine the most important things to work on and distinguish between "things we can improve" and "things beyond our control".
- A) Incorrect. Making Daily Kaizen part of the way the Application Development team operates may be a good idea, but it does not directly address this situation.
- **B)** Incorrect. Daily stand ups are an example of standard work, but are not cross-functional, bit do they address root cause.
- **C)** Correct. This is an example of improvement Kaizen and represents the best approach to this situation where it is unclear what the most effective solution might be.
- **D)** Incorrect. This is an over-rationalization of why the situation cannot be improved and is an example of Non-Lean IT thinking.





The Service Desk team in your organization is divided into six different functional areas based on the core applications they support (Supply Chain, Manufacturing, Customer Management, Product Development, Warehouse, Finance).

Each team is aware of the other support groups but focus on specializing in their area of expertise, the result of which promotes a false sense of separation in which teams operate almost independently of the other groups.

Frequently, end users utilize multiple applications and recently reported that getting timely and adequate service for issues and incidents that cross boundaries between functional areas is very difficult and impacts product quality, customer service, on-time delivery, and profitability. Each functional team's metrics show high levels of performance.

As a Lean IT leader, how do you think the groups are functioning as a team and what do they need to do to improve their performance?

- A) The fact that the Service Desk knows about the issues of multi-functional support is evidence that they are a well-functioning team. All they need is a shared measurement system to align efforts among each functional group.
- **B)** The Service Desk groups are functioning as designed and doing well it is the end users that do not understand that they need to use the Service Desk properly to access the people they need.
- **C)** They are performing at a very high level as proven by their high performance scores, each team has experts in their functional area and do the best they can. Given their expertise, they don't need anything.
- **D)** While they have strong performance metrics, there is room for improvement. The teams need a shared goal and a service delivery orientation among the functional areas.
- A) Incorrect. Shared measurements alone do not change behavior. The team also needs a service delivery mindset.
- **B)** Incorrect. This response simply shifts the responsibility of the problem to the end users this is not Lean thinking!
- **C)** Incorrect. This answer ignores the need for teams to recognize collective work products and the need for collaboration among the functional groups working with the Service Desk.
- **D)** Correct. Each functional group is not performing as a team collectively as evidenced by the issues users are having when they have to cross functional boundaries.

38 / 60

As part of Leader Standard Work in IT, how often do team coaching sessions take place?

- A) Daily
- B) Weekly
- C) Monthly
- D) Quarterly
- A) Incorrect. Team coaching sessions take place on a weekly basis.
- **B)** Correct. Team coaching sessions take place on a weekly basis.
- C) Incorrect. Team coaching sessions take place on a weekly basis.
- D) Incorrect. Team coaching sessions take place on a weekly basis.





39 / 60 What is one of the key characteristics of Hoshin Kanri?

- A) Kata of Leadership
- B) Nemawashi
- C) Shingo
- D) Shu-Ha-Ri
- A) Incorrect. Kata, the Japanese word for form, is all about creating a culture of Continuous Improvement and learning. Hence the Kata of leadership which is required from Lean IT leaders.
- **B)** Correct. The mechanism used within Lean to translate longer term goals to the more immediate future is called Hoshin Kanri. Nemawashi is one of its key characteristics, and means a participative process in which all levels of the organization are involved through consultation and decision-making.
- **C)** Incorrect. Shingo is a model for Operational Excellence and one of the most widely known and used models containing principles for Lean.
- **D)** Incorrect. The process of self-development is guided by the principle of Shu-Ha-Ri. In essence, this entails: Shu (obey), Ha (detach) and Ri (separate).

40 / 60

Which tool for communication directly supports the Lean principle of Jidoka?

- A) Cascade
- B) Performance Dialog
- **C)** Pyramid Principle
- D) Visual management
- A) Incorrect. A cascade is a mechanism that involves aligning meetings, so that the information shared in one meeting can quickly be brought to a different meeting in which the information is needed.
- **B)** Incorrect. A performance dialog is a specific way of discussing performance. It brings together a number of Lean behaviors: Goal-setting based on an integral and factual view of the work, providing support, giving feedback and showing respect.
- **C)** Incorrect. Barbara Minto's Pyramid Principle is a method to construct a story, and is fully compatible with A3 thinking. It supports the building of communication.
- **D)** Correct. The essence of Jidoka is to ensure that problems cannot remain unseen or covered up. Hence the importance of Visual Management to make problems visual and easy to see by all.





In the context of Hoshin Kanri, what is the objective of vertical alignment?

- A) To ensure that all parts of the organization support the development, operations and support plans.
- B) To ensure that all information is cascaded across the organization in a consistent manner.
- **C)** To ensure that the alignment of the goals of all stakeholders from the boardroom to operations.
- **D)** To ensure that the organization is correctly structured according to the key objectives.
- A) Incorrect. In the context of Hoshin Kanri, this is not the objective of vertical alignment.
- B) Incorrect. In the context of Hoshin Kanri, this is not the objective of vertical alignment.
- **C)** Correct. Vertical alignment ensures that all stakeholders, from the boardroom to operations, are aligned. Through the layers of management interaction, goal setting and review, goals are set and adjusted so that they continue to fit.
- D) Incorrect. In the context of Hoshin Kanri, this is not the objective of vertical alignment.

42 / 60

What is the key principle behind the method known as Catch-ball Communication?

- A) Regular cascade of key information from senior IT management
- B) Respect for the creativity and abilities of others in the IT organization
- C) Review of completed projects to derive lessons learned
- D) Senior IT management communication of long term goals
- A) Incorrect. This is not the key principle behind Catch-ball communication.
- **B)** Correct. Catch-ball is a method of idea generation and sharing. The key principle behind the method is respect for the ideas and abilities of others.
- **C)** Incorrect. This is not the key principle behind Catch-ball communication.
- **D)** Incorrect. This is not the key principle behind Catch-ball communication.

43 / 60

What is the **best** definition of True North Principles or Values?

- A) True North refers to what the management of the organization should do, and is a key concept in Lean process improvement.
- **B)** True North principles refer to what the organization as a whole can do, and is a key concept in Lean process improvement.
- **C)** True North represents the constant focus that an organization should have on customer-centric aspects of value, and refers to what the organization could do to identify and implement improvements.
- **D)** True North works as a compass guiding the organization from the current state to where they want to be, and refers to what the organization should do to achieve this.
- A) Incorrect. It is not only applicable to management but to the entire organization.
- B) Incorrect. It does not refer to what we can do but what we should do.
- **C)** Incorrect. It does not refer to what we could do but to what we should do.
- **D)** Correct. It functions more or less as a compass (hence the name), from the direction the organization has chosen steps toward the determined goal(s) are set and it should refer to what we should do.





You have implemented the cascade mechanism in your department, and have significantly improved the level of communication and employee satisfaction in terms of their feeling informed and included. You have been asked to share your experience and approach at an upcoming leadership conference.

You have accepted the invitation and are trying to decide how to present what you have done, and the results that have been achieved.

What points are you most likely to make in your presentation?

- A) Your presentation has the following key points:
 - agendas were aligned between the meetings in the cascade
 - the cascade meetings were held on a regular basis to ensure a cadence calibrated to the need Benefits included a perceived and actual better flow of information.
- **B)** Your presentation has the following key points:
 - all identified issues are recorded, analyzed and prioritized
 - the cascade ran every other day to allow time to analyze issues between meetings
 - Benefits included employee satisfaction and high speed of issue resolution.
- C) Your presentation has the following key points:
 implementing the cascade communication requires simultaneous implementation of visual boards for overview
 agendas were aligned between the meetings in the cascade
 - Benefits included a perceived and actual better flow of information.
- D) Your presentation has the following key points:
 the cascade meetings take place every day this is absolutely vital in order for the mechanism to work
 - all identified issues are recorded, analyzed and prioritized

Benefits included employee satisfaction and high speed of issue resolution.

- A) Correct. The cascade mechanism only works well when agendas are aligned. In addition, there should be a rhythm to the meetings; it should become a habit. Through the cascade mechanism, you expect a better flow of information.
- **B)** Incorrect. Recording, analyzing and prioritizing the issues do not get them solved. Cascade communication must result in quicker issue resolution in order to be a success. Running the meetings every other day may be a good idea. It depends on the need.
- **C)** Incorrect. The cascade mechanism may work without visual boards. Aligned agendas are critical, not boards.
- D) Incorrect. The cascade meetings do not need to take place every day to be effective. They can take place up to a week apart, but shouldn't be more apart than that. Recording, analyzing and prioritizing the issues do not get them solved. Cascade communication must result in quicker issue resolution in order to be a success.





As manager of the IT Security Group, you have recognized the need to meet with your team and discuss team performance. You also see the need to apply Lean IT to the way the team functions.

You decide to construct a Change Story to compel your team to make a change. Employing the Pyramid Principle, you construct your story.

Which elements must be present in the Change Story?

- A) Burning platform
 - Key questions
 - Countermeasures
 - PDCA
 - The Reason why
- B) Change or die statement
 - What if statement
 - The Answer
 - Motivating factors
- C) Compelling reason for change
 - Open issues
 - Solutions
 - Motivating factors
- D) Situation or complication
 - Key Questions
 - Answers
 - Motivations
- A) Incorrect. These are not the elements of the pyramid principle.
- B) Incorrect. These are not the elements of the pyramid principle.
- C) Incorrect. These are not the elements of the pyramid principle.
- D) Correct. This is an accurate description of the elements of the pyramid principle.





You have been asked to implement catch-ball communication in your department. You think it is a great idea, make a start straightaway.

What would be the **best** example of catch-ball communication in order to obtain the intended benefit?

- A) You engage your team leaders in the catch-ball communication as you feel that there needs to be some managerial overview and decision-making power involved in the communication to ensure that it brings as much value as possible. Your team leaders engage very actively in the dialog and most of them personally select and 'catch specific balls' of ideas you send out. Your dialog with them is very rich and you examine different angles in regards to strategy, personnel issues/situation etc. This mechanism gives you great input regarding the deployment of future strategies.
- B) You have many great ideas for implementing the vision for the department and organization, so you send out your thoughts to the entire department for them to reflect on (for them to 'catch the ball' essentially). Some of them provide you with feedback and input (they throw the ball back to you). You continue with similar dialogs with those of your employees who decided to 'pick up the ball and play' with you.
- **C)** You send out a couple of your ideas to some of your employees for input (you 'pass the ball' to them). They all 'catch and return the ball' to you, to continue the dialog. The final result is that several improvement options are identified which represent a blend of both perspectives.
- **D)** You develop a number of ideas for improving employee satisfaction and ask your manager help you choose the best course of action.
- A) Incorrect. Catch-ball communication is not just for managers. It is actually specifically intended for dialog on all levels.
- B) Incorrect. You started the process right, but you did not really show respect for the feedback you got, when all you did was to analyze and conclude that it was a bad feedback idea you got. The whole idea is to spawn dialog and use the catch-ball mechanism as a tool for encouraging your employees to reflect and analyze themselves. Not for you to receive their ideas and pass judgement on them as being good or bad ideas.
- **C)** Correct. You need to ask everybody to 'play ball' and when you get input back on your serve, you need to ensure that the resulting dialog is both respectful and encourages the employee to reflect, consider, analyze and synthesize. You should not do this for them, but guide the process towards a good result by asking the right questions and putting up the right challenges in the dialog.
- D) Incorrect. Being asked for input and then being rejected without dialog on some of them is not a motivating way to use catch-ball communication. The dialog is best if it is respectful, two-way, explorative and focused. As opposed to employees shooting of many ideas waiting for them to be either rejected or accepted.





As a Lean IT leader, you have decided to apply Visual Management throughout all groups within IT.

For the Application Development group, what is the primary reason for having standardized Visual Management?

- A) Ensuring that all information is visible in order to minimize unnecessary interruptions.
- **B)** Forming the physical environment for effective top-down communication through the Application Development organization.
- **C)** Gaining clarity of the product backlog, seeing the Flow of work, and complying with the Definition of Done.
- D) Knowing the type of requests that are coming in, and increasing reliance on self-service facilities.
- A) Incorrect. This is not the primary objective of visual management.
- B) Incorrect. This is not a purpose of visual management.
- **C)** Correct. These are all primary advantages from having standardized visual management in the application development group.
- D) Incorrect. These are benefits of visual management in the Service Desk area.

48 / 60

What is the most important focus when transforming to Lean IT?

- A) Focus on cost advantages
- B) Focus on Customer Value
- C) Focus on Shingo principles
- D) Focus on strategic gains
- A) Incorrect. Costs are a generic topic for every business case. By introducing Lean (by investing) costs will go down eventually because of better quality of people, processes and products, etc.
- **B)** Correct. The benefits that Lean IT brings to increasing customer satisfaction starts with the increased focus on customer value.
- **C)** Incorrect. The Shingo principles represent the key values, which differentiate Lean leadership from other models, and need to be upheld when transforming to Lean.
- **D)** Incorrect. Strategic advantages come as a result of the Transformation for which customer value is a central topic.





During the transition to Lean IT, there are 3 broad phases that IT leaders and their teams must go through.

Which phases are these?

- A) Farewell
 - Letting Go
 - Moving forward
- B) Old Ideas
 - Reassure
 - New Ideas
- C) Planning
 - Implementing
 - Next Steps
- D) Showing Respect
 - Adopt
 - Celebrating Success
- A) Correct. The three broad phases are: Farewell, Letting Go, Moving forward.
- B) Incorrect. The three broad phases are: Farewell, Letting Go, Moving forward.
- C) Incorrect. The three broad phases are: Farewell, Letting Go, Moving forward.
- D) Incorrect. The three broad phases are: Farewell, Letting Go, Moving forward.

50 / 60

Transforming an IT organization to a Lean IT organization can be done in three stages. Each of the three stages can be seen as a learning level.

One of these levels is often approached with skepticism as to the ability of the new way of working to deliver results and benefits.

Which level is this?

- A) Know how
- B) Know what
- C) Know when
- D) Know why
- A) Incorrect. At this stage the team has fully understood the results and benefits of the Lean way of working, and will carry out day starts, Daily Kaizen and other such activities independently of the presence of the leader.
- **B)** Correct. There is often a substantial amount of skepticism as to the ability of this new 'fad' to deliver results and benefits. Many IT people have seen the various models, trends and hypes, and have also seen many blow over.
- **C)** Incorrect. This is not one of the learning levels of this model. Time planning is a generic component of project based work.
- **D)** Incorrect. At this stage Lean IT is recognized as the IT organization's mode of operation. There is widespread belief that Lean IT is the right thing to do.





In which role does a Lean IT coach help the Lean IT Leader to stay on track and to stick to the commitments they have made?

- A) Conscience of the IT organization
- B) Experienced Lean IT consultant
- C) Lean IT Kaizen Lead
- **D)** Member of the guiding coalition
- A) Correct. In this role the coach helps the leader to stay on track and to stick to the commitments they have made.
- **B)** Incorrect. This role is preferably fulfilled by an external consultant and is not necessarily one of the internal coach's roles as in many cases Lean IT leaders choose to supplement their experience with external experience.
- **C)** Incorrect. This is a separate role. A Kaizen lead manages the Kaizen process on behalf of the sponsor and the team.
- **D)** Incorrect. A Lean IT coach takes the role of member of the guiding coalition in the absence of a leader, without the hierarchical position of the managers. The Lean IT coach is usually trained during the Lean leadership phase, together with the managers.

52 / 60

In the context of organization, should the Transformation to Lean be top-down or bottom-up?

- A) Top-down
- B) Bottom-up
- C) Both at the same time
- D) Top-down initially, followed by bottom-up
- A) Incorrect. Transformation comes from the top and improvement initiatives come from the bottom-up.
- B) Incorrect. Transformation comes from the top and improvement initiatives come from the bottom-up.
- **C)** Correct. Both activities happen simultaneously Transformation comes from the top and improvement initiatives come from the bottom-up.
- **D)** Incorrect. Transformation comes from the top and improvement initiatives come from the bottom-up. Both should happen at the same time to transform successfully.





You are the CIO of an IT organization with 100 employees and you are planning a Lean IT Transformation. This is your plan.

As the change needs to be driven from and anchored at an organizational level, you establish a program for that first, with the following activities in chronological order:

- 1. Lean IT Leadership
- 2. Lean Transformation
- 3. Continuous Improvement

While the Lean IT Leadership activities are running, you start the change at the team level, where your program consists of waves of transformation, with the following activities in chronological order:

- 1. Prepare
- 2. Organize
- 3. Analyze
- 4. Implement

As a lean transformation requires everyone to subscribe to it, you ask the employees to get involved with making the plans. Based on Rogers classification in Diffusion of Innovations, you identify the group of employees labeled as 'Late Majority' and 'Laggards' in order to ensure that they get a little extra attention and understand that this is the path chosen for the organization. You ensure that the employees and managers working on the team-level initiatives are encouraged to hand over their results to the relevant team leader, in order to ensure continuous improvement.

You take the plan to your coach. What feedback are you most likely to receive on your plan?

Question continues on the next page.





A) Your coach is appreciative of your plan and efforts, but challenges you on the following:
 You should not start before some activities in the Lean IT Leadership phase have been carried out, thus ensuring that the leaders are ready to support and encourage the transformation (as stated in Rogers Diffusion of Innovation model).

- You should include the 'organize' activity in the Lean Transformation track in the organizational level, so that the team-level initiatives are resourced correctly and 'ready to go' once they have been initiated.

- You need to ensure that the teams working on team-level initiatives hand over their results to the relevant team leader, in order to ensure continuous improvements.

B) Your coach is appreciative, but challenges you to:

- Not start the team activities before the Lean IT Leadership activity is complete, thus ensuring that the leaders slowest to adopt change (as stated in Rogers Diffusion of Innovation model) are given the time to adapt.

- Use the following way of organizing your team initiatives - Prepare, Analyze, Implement, Improve. - Ensure that the creation and use of a Change story is clearly positioned in the plan.

C) Your coach likes the division between the organization and the team level, but challenges you to improve integration between the two by:

- Encouraging the employees to start the team-level initiatives from the start of Lean IT Leadership. This will allow them to gain more knowledge themselves earlier on in the program.

- To get a better commitment among employees, your coach challenges you to appoint at least 2 employees in the 'late majority' and 'laggards' categories to each project team on the team level (as defined by Rogers in his Diffusion of Innovation model).

- Getting both managers and employees to start solving problems together as soon as possible.

D) Your coach praises you for the plan, and has only a few suggestions for improvement:

 Ensure that employees are more involved in the Lean IT Leadership activities from the start.
 Include more focus on standardization in your program, ensuring that you have a standard approach to documenting what initiatives to run, how to run them, and how to display results. He suggests using the A3 method for this, as well as visual management.
 Use Nemawashi before attempting to start the Lean IT Leadership stop.

- Use Nemawashi before attempting to start the Lean IT Leadership step.

- A) Correct. It is important that the leaders are fully engaged (and allowed their own time to adapt to the change) and ready to coach the rest of the organization before embarking on a transformation, thus the team level initiatives should not start before at least some of the Lean Leadership activities on the organizational level have been carried out. You also need to ensure that the responsibility to resource project teams man and ensure knowledge and skills competency matches in at the team level initiatives are handled on the organizational level. Lastly, ensuring sustainability of continuing the improvement work after implementation is key. There is no way You will be able to first of all "get it 100% right" in an initiative, and secondly once you do get it 100% right, the world will have changed in the meantime.
- **B)** Incorrect. Team activities may start during the Lean IT Leadership step, there is no 'organize' phase in the publication and handing over results to team leaders is not the way to help a team take responsibility for their initiatives.
- C) Incorrect. Leaders need to ensure that they are "up-to-speed" with their education and setting goals before "encouraging" employees to do things at team-level. Obviously, if teams wish to take action, leaders must not stop them but encouraging this behavior is not appropriate at this phase of the transformation. Problem-solving is an activity that needs to be worked towards, not as soon as possible.
- D) Incorrect. Lean IT Leadership is meant primarily for the leaders, particularly "at the start". Employees would be kept informed but not involved. Using Nemawashi is not appropriate at this phase because leadership must also take responsibility and make choices. Getting the leadership team together and getting informed about Lean IT would be the start of Lean IT Leadership. It is not necessary for Nemawashi to be used to get yourself informed. As you move into planning, etc., the leadership team will need to start integrating Nemawashi into their plans.





You are the CEO of a large hosting company, and have decided to launch a new vision for where the organization needs to be in 3-5 years. You presented the vision at the last employee gathering a couple of months ago, and generally people seemed to like it and find it motivating. You received a couple of questions on the vision at the gathering, but have not heard much challenge of it since. You have asked your managers to start analyzing what needs to be done in order to realize the vision.

The vision you presented at the gathering was:

We are in a commodity business, where the way to survive and win is to have better quality and better prices than the competition. However, the market is shifting towards a greater focus on availability and scalability.

In order for us to continue to prosper, we need to answer the call of the market, and build a more scalable platform that we can offer to our clients.

What would you say are the **largest** barriers for success which will prevent this vision being realized?

- A) The vision is not very motivational in terms of creating a guiding coalition. There appears to be no real plan or resolve behind it, and it is quickly forgotten by the employees since most of them barely hear about it again for quite some time.
- **B)** The vision needs to be communicated more often and to a wider audience, both in terms of what it contains and in terms of progress, who is involved etc. A vision which is not communicated will not be realized.
- **C)** The vision needs to communicate clearly how barriers will be identified and what will be done to remove them, something this vision lacks.
- **D)** The vision should have been developed at the meeting and not just presented there. Employees need to be an integral part of creating strategies and visions in order to understand and implement them.
- A) Correct. A good vision needs to be clear, contain some sense of urgency, be communicated several times to stay relevant and important. As a bare minimum.
- **B)** Incorrect. Although it is correct that communication is a critical factor in realizing any vision or strategy, it is not the only factor, which is needed. In this example, the vision is simply not specific enough to gain support and to motivate employees. What exactly is it that is needed? Not to mention that the sense of urgency is not specified to contribute to motivation.
- **C)** Incorrect. Although spotting and removing barriers is important to realize a vision, it is even more important that it is actually defined specifically in order to gain understanding and support, as well as being communicated often and include a sense of urgency for change. None of these are present in this vision.
- D) Incorrect. Employee understanding, support and involvement IS very important to succeeding with visions. However, they should not necessarily be part of creating them, but mostly in realizing them, planning for them, identifying and overcoming obstacles et cetera. The larger problem with this vision is that it does not include a sense of urgency, it is not communicated often and strongly enough, and it is just not specific enough for anyone to be motivated by it.





You are leading a Lean IT Transformation in your organization and have finally been released from your other projects to work on this.

You need to make an A3 for the project to ensure that it is correctly scoped, aims at the correct desired results etc.

You decide to use a 'proposal A3' format for this purpose and begin filling it out.

Which approach is the best way to get the A3 completed and approved?

- **A)** With the involvement of the critical stakeholders covering the full program, create an A3 which holds different scenarios for the proposed best course of action to implement the Lean IT Transformation.
- **B)** Create separate proposal A3s for the organizational and team level of the project, thus ensuring that each level has each its own value proposition.
- **C)** Divide the Lean IT Transformation project into phases, and complete the proposal A3 with your stakeholders for the first phase. Complete one A3 for each phase, before starting that phase.
- **D)** Gather all the information you can from previous management decisions, any analysis you can obtain, and observations, and then make a balanced proposal A3 for approval in management.
- **A)** Correct. It is entirely fine to analyze and list different scenarios in an A3. Particularly if it is an earlier version in the initiation of a project or program.
- **B)** Incorrect. You need to make a proposal A3 for the entire program. The Organization level and team level cannot really be split up in each their proposal A3, as they need to both have the same focus and aim at the same goal and benefits.
- **C)** Incorrect. You need to be sure to make an A3 for the entire transformation in order to get the full picture.
- D) Incorrect. You need to make sure that you do not make the proposal A3 based on derived knowledge. You need to "go see, ask why and respect people", not to mention that you really need to do "Nemawashi" in order to prepare management and the organization for the decisions and transition to come.





After a couple of months of working to implement visual management using daily, weekly and improvement boards, you are making a status report of your progress and results.

Here is an account of the related activities over the past couple of months:

- You launched the vision to implement visual management at a team meeting.

- You gained Senior Leadership buy in, endorsement and commitment from all the critical stakeholder groups.

- You invited employees in to help you make a design and a plan. None of them had heard about the initiative before but, after a while, they saw the power and value of it.

- You did not have whiteboards available for the boards, so you used huge pieces of paper for the purpose until you were able to get proper boards.

- There seemed to be no timeslot where everybody was able to attend, so you chose a timeslot where most could attend.

- After 2 weeks of working with the boards, you found that progress and value created from the boards was relatively good, so you decided to add more content to the daily board. This disrupted the success you had already accomplished as people were not ready for more. So you rolled back the new additions and continued as you were.

After about 4 weeks of working with the boards, you found that some of the employees stopped prioritizing the meetings. The board manager (a motivated employee who had been part of defining the boards to begin with) was unable to ensure employee attendance, so he escalated to you.
After about 6 weeks of working with the boards, you found that attendance was sufficiently good, the whiteboards you had ordered had finally arrived, and people seemed motivated to use the boards. So you invited everybody to a celebration cake.

Which of the following **best** describes the critical errors of organizational change management you made in your implementation?

A) - You did not communicate the vision sufficiently. It needs to be communicated often and be followed by visible actions (which you did ensure).

- You did not succeed with removing critical obstacles. Everybody must attend every meeting, and it is up to you to ensure that everybody else's calendar allows you to implement the vision you have.

B) - You did not create enough of a guiding coalition around your vision. There needs to be a 'critical mass' of people (leaders and employees) understanding and supporting a given vision for it to be implemented.

- You did not communicate the vision strongly enough. Talking about it a couple of times does not give it sufficient support.

C) - You did not succeed with removing critical obstacles, as you did not ensure proper boards from the beginning.

- You did not do sufficient systematical planning, since you had to implement more complexity onto the board design too early (2 weeks in).

D) - You did not succeed with removing critical obstacles. Not having proper boards to work with from the start really made a bad first impression.

- You did not do sufficient systematical planning, since you had to implement more complexity onto the board design too early (2 weeks in).

Question continues on the next page.





- A) Correct. The vision needs to be not only strong, but it also needs to be communicated heavily. Many leaders think that they can plant and implement a vision by talking about it a couple of times. That is not enough. Allowing the initiative to yield to the calendars of some of the employees is not good. It sends a signal that this is not important and will be a major obstacle for implementation. Which also happened when some of the employees started not showing up. It will happen again, as long as you have not removed this obstacle for success.
- B) Incorrect. You did actually do well with creating a guiding coalition. The board manager did well, and you invited employees in to design the board ensuring that they not only understood the vision, but that they also supported it. Further, the vision needs to be not only strong, but it also needs to be communicated heavily. Many leaders think that they can plant and implement a vision by talking about it a couple of times. That is not enough.
- **C)** Incorrect. Having "proper" boards is not that critical. It is more about having the right behavior and enforcing it, so that it becomes a habit. Further, trying out something new (implementing an improvement) is not a bad thing, so although it may have been a bit early to do it, it was not as such a critical error. Keep the improvements coming let change become a part of the habit!
- **D)** Incorrect. Having "proper" boards is not that critical. It is more about having the right behavior and enforcing it, so that it becomes a habit. Trying out something new (implementing an improvement) is not a bad thing, so although it may have been a bit early to do it, it was not as such a critical error. Keep the improvements coming let change become a part of the habit!

On which model is the A3 method based?

- A) DMAIC
- B) Kaizen
- C) PDCA
- D) SIPOC
- **A)** Incorrect. DMAIC is the acronym for the five steps in problem solving with Kaizen: Define, Measure, Analyze, Improve and Control. A3 is not based on DMAIC.
- **B)** Incorrect. Kaizen is an improvement philosophy in which continuous incremental improvement occurs over a sustained period of time, creating more value and less waste. A3 is not based on Kaizen.
- **C)** Correct. One of the powerful tools that Toyota has institutionalized within Lean is working with A3 reports. It supports and promotes Continuous Improvement, and is based on the PDCA cycle.
- **D)** Incorrect. SIPOC is a tool that summarizes the inputs and outputs of one or more processes in table form. A3 is not based on SIPOC.





You need to find a good way to describe ideas and improvement projects, and have been guided towards the A3 method. You have not worked with this method before and you are unsure of exactly which competencies you need to use it. You also do not know how it can help you to tell the right story and communicate the goals and content of your intended project.

Which of the following best describes how the A3 method supports you in your aim?

- A) It is important that you can understand the problem, analyze its causes, and are able to present it in a visual manner. A3 helps you to communicate your intentions based on a strong description of the root causes and the group of employees that are impacted by the problem.
- **B)** Strong communication requires a strong story line which describes the underlying situation and the strategy to improve it. Completing an A3 mainly requires common sense, a structured approach and good writing skills.
- **C)** You must understand the problem and summarize it. Analyzing and synthesizing the problem is also important. A3 can help to make your presentation visual, communicate the problem, and identify which course of action you propose.
- **D)** You need a strong analytical approach to understand the root causes and the ability to synthesize a potential solution. A3 can help you make the situation and problem description specific. This will help you gain the support and understanding you need.
- A) Incorrect. Although understanding a problem and its root causes are very important elements, you also need to be able to analyze and propose a solution. What you need are specific competencies for:
 1. Summarizing, 2. Analyzing, 3. Synthesizing, 4. Visualizing. Further, you need a strong story based on the pyramid principle, which includes describing the: Situation, Complication, Key Question, Answer, Motivation.
- **B)** Incorrect. Although common sense et cetera is great to have, what you need are specific competencies for: 1. Summarizing, 2. Analyzing, 3. Synthesizing, 4. Visualizing. Further, you need a strong story based on the pyramid principle, which includes describing the: Situation, Complication, Key Question, Answer, Motivation.
- **C)** Correct. You need specific competencies for: 1. Summarizing, 2. Analyzing, 3. Synthesizing, 4. Visualizing. Further, you need a strong story based on the pyramid principle, which includes describing the: Situation, Complication, Key Question, Answer, Motivation.
- D) Incorrect. Although analytical and synthesizing skills are very important to have, they cannot stand alone. What you need are specific competencies for: 1. Summarizing, 2. Analyzing, 3. Synthesizing, 4. Visualizing. Further, you need a strong story based on the pyramid principle, which includes describing the: Situation, Complication, Key Question, Answer, Motivation.





You are embarking on a Lean IT Transformation in your organization and are concerned that your people do not understand the vision, and do not become actively involved with the change.

Which step or steps can you take to increase the likelihood that people grasp the vision and become deeply involved in the change?

- A) Create official roles and titles which give people responsibility and authority to make the change stick.
- B) Creative monetary incentives for those people who take an active role in the Transformation.
- **C)** Repeat the vision frequently and provide specific activities for people to apply Lean IT as part of daily work.
- **D)** Train your people frequently by running Lean simulations and contests in order to make Lean IT fun.
- A) Incorrect. The example of "command and control" is the opposite of Lean thinking and is doomed to fail!
- **B)** Incorrect. Monetary incentives have proven not to be effective they may incent a temporary change in behaviors but they do not develop deep buy-in and engagement.
- **C)** Correct. These are both examples of installing the vision and Lean IT deeply into the daily routines of people.
- D) Incorrect. This is not an effective approach to communicating the vision and creating involvement.





Dr. Kaoru Ishikawa described the working of Hoshin Kanri as follows:

"Top managers and middle managers must be bold enough to delegate as much authority as possible. That is the way to establish respect for humanity as your management philosophy. It is a management system in which all employees participate, from the top down and from the bottom up, and humanity is fully respected."

What are the three correct key characteristics of Hoshin Kanri?

- A) 1. Short term focus on direct results.
 - 2. Focus on bottom-up movement to create widely accepted improvements within the company.3. Correct responsibilities and accountabilities throughout the organization need to be ensured.
- B) 1. As long as results are achieved correct responsibilities and accountabilities are less important.
 2. Consultation and decision-making is a mainly a management task.
 3. Hoshin Kanri has both top-down and bottom-up components. The top determines the overall direction. The bottom-up aspect is a Flow of information so that decisions can be made at the right level concerning the achievement of the results.
- **C)** 1. Hoshin Kanri is both top-down and bottom-up. The top-down aspect is a Flow of information. The bottom-up aspect is all about setting the overall direction so that decisions can be made at the right level concerning the achievement of the results.
 - 2. People development is more important than the results.
 - 3. Three to five 'breakthrough' objectives need to be achieved every quarter.
- D) 1. Long term focus with a strong link to guiding principles.
 2. Achieving results through people development.
 3. A process in which all levels of the organization are involved through consultation and decision-making.
- A) Incorrect. 1. Incorrect. It has a long-term focus and results are directly linked to the process of people development 2. Incorrect. It has both top-down and bottom-up components. The top-down aspect is all about setting the overall direction. The bottom-up aspect is a Flow of information so that decisions can be made at the right level concerning the achievement of the results. 3. Correct this is a characteristic of Hoisin Kanri but the other 2 are incorrect.
- B) Incorrect. 1. Incorrect. It is primarily oriented towards ensuring and using the correct responsibilities and accountabilities set throughout the organization. 2. Incorrect. It has both top-down and bottom-up components. The top-down aspect is all about setting the overall direction. The bottom-up aspect is a Flow of information so that decisions can be made at the right level concerning the achievement of the results. 3. Correct. but the other 2 are incorrect
- C) Incorrect. 1. Incorrect. Top-down and bottom-up aspects are reversed. Bottom-up is a Flow of information for management to make the decisions. 2. Incorrect. It is concerned with results, and the accompanying process focuses on achieving the results through people development. 3. Incorrect. Annual improvement priorities need to be determined but not fixed every quarter, and they need to be derived from its long-term (True North) vision.
- D) Correct. 1. Correct. Lean policy deployment is linked to a long(er) term focus and aims for realizing guiding principles and/or True North Values 2. Correct. It has a long-term focus and results are directly linked to the process of people development 3. Correct. It is a participative process, in which all levels of the organization are involved through consultation and decision-making (Nemawashi). To have the whole organization aiming for the same goal(s) is crucial.





Evaluation

Question	Answer	Question	Answer
1	D	31	Α
2	В	32	D
3	Α	33	D
4	С	34	В
5	С	35	Α
6	А	36	С
7	D	37	D
8	С	38	В
9	А	39	В
10	В	40	D
11	С	41	С
12	С	42	В
13	В	43	D
14	D	44	Α
15	А	45	D
16	D	46	С
17	С	47	С
18	А	48	В
19	D	49	А
20	В	50	В
21	С	51	А
22	В	52	С
23	А	53	А
24	А	54	А
25	В	55	А
26	А	56	А
27	С	57	С
28	В	58	С
29	С	59	С
30	С	60	D

The table below shows the correct answers to the questions in this sample exam.









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