Question Bank - Level 1a Questions

Question 1 of 56

Which is the last of the Womack and Jones 'Five Principles'?

- A) Specify value
- B) Pull just in time
- C) Strive for perfection
- D) Create flow
- E) Identify the value stream

Question 2 of 56

Creating effective flow is critical in lean because of which one of the following?

- A) It allows us to understand the 'current state'.
- B) It frees up time and/or capacity so that we are able to do more.
- C) It enables us to better understand customer value.
Question 3 of 56

Which one of the following phrases best summarises the approach underpinning standardisation?

- A) One best way.
- B) A place for everything, everything in its place.
- C) Keeping organised.
- D) Control through discipline.

Question 4 of 56

Which World War Two operations and training system is said to have inspired Toyota?

- A) Training Within Industry.
- B) Six Sigma.
- C) Business Process Re-engineering.
- D) Total Quality Management.

Question 5 of 56

What does PDCA stand for?
(separate each word with a comma)

Question 6 of 56
What are the seven wastes of the Toyota Production System?
(separate each one with a comma)

Question 7 of 56

**Necessary Non-Value Adding** is a term used to describe an activity that is what?

- A) Required by current state but is difficult to remove today.
- B) Important in delivering value to customers.
- C) Ready for immediate removal.
- D) Part of the operation's support function.

Question 8 of 56

Fill in the missing word for Rule One of Spear & Bowen's DNA of the Toyota Production System: "All work shall be highly _____ as to content, sequence, timing and outcome."

- A) Sorted
- B) Specified
- C) Synchronised
- D) Standardised

Question 9 of 56

A successful lean implementation should primarily achieve which one of the following?

- A) Improve profitability
Question 10 of 56

Lean is said to be about reducing Muda, Mura and Muri. Which one of the following is not a translation of one of these?

- A) Overstocking
- B) Waste
- C) Overburden
- D) Unevenness

Question 11 of 56

Policy deployment primarily aims to achieve which one of the following?

- A) To formulate an effective strategy.
- B) Ensuring business targets are met.
- C) Alignment of actions with strategic objectives.
- D) The control of workers actions and performance.

Question 12 of 56

The Pareto principle is often referred to as what?

- A) The law of the vital many
The principle of factor disparity
The 95:5 rule
The 80:20 rule

Question 13 of 56
From whose perspective should value be identified in a lean organisation?

A) Stakeholders
B) Shareholders
C) Suppliers
D) Customers

Question 14 of 56
In a lean process, you should only do what the customer will...
(select one option)

A) Want to take delivery of.
B) Want to pay for.
C) Want to consume.
D) Want to stock.

Question 15 of 56
Which industrialist is said to have inspired the creation of the Toyota Production System?

A) Henry Ford
Question 16 of 56

What term describes the techniques developed in World War II to improve aircraft production that are said to form the foundation of lean thinking?

- A) Industrial Engineering
- B) Total Quality Management
- C) Training Within Industry
- D) Toyota Production System

Question 17 of 56

Which two of the following does value stream mapping aim to depict?

- A) People flow
- B) Material flow
- C) Stock flow
- D) Information flow

Question 18 of 56

What are the seven classic wastes of the Toyota Production System?

Select seven options only.
Question 19 of 56

Who said “you can't manage what you don't measure”?

☐ A) Eli Whitney
☐ B) W Edwards Deming
☐ C) Shieigo Shingo
☐ D) Henry Ford

Question 20 of 56

Systems Thinking encourage us to think of our work environment and business culture as which one of the following?

☐ A) An environment governed by risk and compliance.
☐ B) An independent team.
C) A system based on hierarchy of needs of the managers.

D) An interlinked and inter-dependent ecosystem.

Question 21 of 56

What is a current state map?

A) A map depicting the current layout of an operation or department.
B) A view of a current value stream from the customer's perspective.
C) A map of a process that has identified all the areas for waste removal.
D) A value stream map that depicts things as they currently exist within the value stream.

Question 22 of 56

Proponents of systems thinking claim that a service system should be designed primarily to do which one of the following?

A) Absorb demand variety at the earliest opportunity
B) Use economies of scale to create effective solutions to service delivery issues
C) Create a back office full of experts who can solve problems
D) Develop sophisticated approaches to rectifying customer complaints

Question 23 of 56

Which of the following classic 'seven wastes' is considered the "worst" one?
Question 24 of 56

Lean techniques emphasise **visibility** in order to achieve which two of the following?
1. Make it easier to identify those responsible for failures
2. Make the workplace tidier and neater
3. Make problems stand out
4. Encourage instant response

A) 3 and 4 only  
B) 2 and 4 only  
C) 2 and 3 only  
D) 1 and 3 only

Question 25 of 56

In identifying **value**, which one of the following should primarily be referenced?

A) Historical sales performance  
B) New product development ideas  
C) Customers' wants and needs  
D) The insight and intuition of managers

Question 26 of 56

Ideally, which one of the following groups should be involved in continuous improvement activities?

A) Senior, middle management and front line staff  
B) Senior management and front line staff
C) Front line staff involved in delivering the process

D) Middle managers with key operational responsibilities

**Question 27 of 56**

In lean thinking the utopian state of a process is known as which of the following?

A) Ideal state

B) Future state

C) Goal state

D) Perfect state

**Question 28 of 56**

*Mura* and *Muri* are two core lean aspects linked to, and a significant cause of, waste (*Muda*). What are they (select one option)?

A) Unevenness and under empowerment

B) Over control and over stocking

C) Over burden and over processing

D) Over burden and unevenness

**Question 29 of 56**

Spear and Bowen state that the Toyota Production System is a paradox because of which one of the following?

A) Its rigid specification systems actually make flexibility and creativity possible
It produces more output with fewer inputs than traditional companies

Workers feel empowered but they are not able to change standards independently

It does not see the lean tools that are associated with Toyota as critical to its success

- **B)** Its rigid specification systems actually make flexibility and creativity possible
- **C)** Workers feel empowered but they are not able to change standards independently
- **D)** It produces more output with fewer inputs than traditional companies

**Question 30 of 56**

In services, understanding the **nature of demand** should be one of the first activities undertaken when starting improvement activity.

- **A)** True
- **B)** False

**Question 31 of 56**

Who was the chief architect of the Toyota Production System?

- **A)** W Edwards Deming
- **B)** Eiji Toyoda
- **C)** Shigeo Shingo
- **D)** Taiichi Ohno

**Question 32 of 56**

Spear and Bowen's 'fourth rule' of the Toyota Production System is which of the following?
A) All work shall be highly specified as to content, sequence, timing and outcome

B) The pathway for every product and service must be simple and direct

C) Every customer-supplier connection must be direct and there must be an unambiguous yes or no way to send requests and receive responses

D) Any improvement must be made in accordance with the scientific method, under the guidance of a teacher, at the lowest possible level in the organisation

**Question 33 of 56**

Who were the authors of the book *Lean Thinking*?

A) Jones and Roos

B) Womack and Jones

C) Womack and Roos

D) Womack, Jones and Roos

**Question 34 of 56**

Who was the American professor who introduced Japanese manufacturers to quality and systems thinking?

A) James Womack

B) W Edwards Deming

C) Peter Senge

D) Richard Schonberger

**Question 35 of 56**
What is the missing word in the W Edwards Deming quote: "In God we trust; all others must bring __________"?

Question 36 of 56

Place the Womack & Jones Five Principles in the correct order: 1) pull, 2) strive for perfection, 3) flow, 4) specify value, 5) identify value stream
[write each number in sequence separated by a comma - do not use brackets]

Question 37 of 56

The anti lean opposite to single piece flow is which one of the following?

- A) Shared services
- B) Multiple piece flow
- C) Batch and queue
- D) Bespoke production

Question 38 of 56

John Seddon states that a key problem in many service systems today is which one of the following?

- A) The misunderstanding and misapplication of targets in order to improve performance.
- B) Failure to do sufficient value stream mapping of key business processes.
C) The incorrect use of standardisation and workplace organisation in the workplace.
D) Insufficient use of lean tools and techniques by continuous improvement specialists.

Question 39 of 56

Which WW2 manufacturing initiative approach is said to have inspired the creation of the Toyota Production System?

A) Training Within Industry
B) Ford Production System
C) Total Quality Management
D) Scientific Management

Question 40 of 56

A contingent approach to lean thinking suggests which one of the following?

A) You adopt a prescriptive approach to your lean implementation
B) You do not make detailed plans but implement lean in an organic way
C) You focus on a rigorous application of the classic lean tools of the Toyota Production System
D) You adapt your implementation approach to fit your operation's particular circumstances

Question 41 of 56

A value stream shows all activities from order to ______?
Question 42 of 56

What does PDCA stand for?

Write in each step separated by a comma

Question 43 of 56

Write an acronym that is often used to remember the classic seven wastes.

Question 44 of 56

Necessary Non-Value Adding is a term used to describe an activity that is which three of the following?

- A) Is difficult to remove in the short term
- B) Is something the customer likes, but doesn't want to pay for
- C) Tells us information that could be valuable at some future point
- D) Is required by current state but is not in the customer's interest.
- E) Could potentially be eliminated in the long term

Question 45 of 56

In services, what is the term used to describe the work that arises due to a previous fault or error in operations or service?
Question 46 of 56

Womack has an abbreviated definition of lean, which is \textit{lean} = \textit{purpose} + \textit{process} + \textit{what}?

- A) Practice
- B) Planet
- C) People
- D) Policy

Question 47 of 56

In which seminal book was the term \textit{lean} first used?

- A) The Toyota Way
- B) The Machine that Changed the World
- C) The Lean Toolbox
- D) Lean Thinking

Question 48 of 56

Which one of the \textit{seven classic wastes} hides problems by covering them up?

- A) Transport
Question 49 of 56

Kaikaku means which one of the following?

- A) Problem solving
- B) Learning organisation
- C) Breakthrough improvement
- D) Continuous improvement

Question 50 of 56

What term is often used in services to describe the work that arises due to a previous fault in operations or service?

- A) Failure demand
- B) Non added value demand
- C) Customer complaints
- D) System breakdown

Question 51 of 56
Complete the missing word: "In Lean we are interested in time compression because it frees up______ so that we are able to do more".

**Question 52 of 56**

Which one of the following is a necessary non-adding value activity?

- A) Checking to ensure compliance with regulations.
- B) Staff training in health and safety.
- C) Undertaking rework to correct mistakes.
- D) Searching through documents to find information.

**Question 53 of 56**

Lean thinking's fifth principle (Womack & Jones) is concerned with which of the following?

- A) The state of being without a flaw or defect
- B) The act or process of perfect
- C) The act of making something perfect
- D) The quality or condition of being perfect
- E) The endless pursuit for perfection

**Question 54 of 56**

In lean thinking terms perfection is which one of the following?
A) The state of being without a flaw or defect.
B) The act of making something perfect.
C) The act or process of perfect.
D) The endless pursuit to be perfect.
E) The quality or condition of being perfect.

**Question 55 of 56**

A value stream shows all activities from order to what?

A) Storage
B) Production
C) Consumption
D) Delivery
E) Customer service

**Question 56 of 56**

Which is considered the worst of Taiichi Ohno's seven wastes?

A) Overproduction
B) Over processing
C) Defects
D) Waiting
E) Transport
F) Motion
G) Inventory