

Unit 5.3. Lean production and quality management [HL Only]

Task 1: Complete the missing words

Quality _____ (QA) requires the implementation of processes and systems to make certain that quality standards are met to ensure customer _____. QA is used by a business to give customers greater confidence in the quality of the products that they buy from the firm. A firm that is able to meet QA standards will publicise this, usually with the use of international quality assurance trademarks, such as ISO _____.

At the heart of quality management are concepts such as _____ production (the elimination of waste) and _____ (a production system that removes the need to use buffer stocks by having stocks and components delivered as and when they are needed in the production process). Quality management also involves all members of an organization striving to make small, continuous adjustments and improvements. This philosophy is known as _____, the Japanese term for 'change for the better' or 'continuous improvements'.

One other way used by businesses to manage quality is by comparing their practices or performance indicators with those of the best in the industry. This method is known as _____ (BPB), or simply 'benchmarking' for short. BPB is as a continuous process in organizations that make every effort to achieve quality assurance.

Task 2: True or false?

		True/False
a.	Quality means that a product is high-class and one of the best in its industry, such as Rolls Royce cars or Rolex watches.	
b.	Quality is a source of global competitiveness.	
c.	Poor quality means that a firm's prices are higher than the industry average.	
d.	Lean production is the process of streamlining operations management to reduce all forms of waste and to achieve greater efficiency.	
e.	Andon is a lean production method that uses a visual control system to indicate the status of an aspect of the production process.	
f.	Kanban is a lean production method that uses a card system with an inventory number attached to each component in the production process.	
g.	Cradle to cradle manufacturing is a sustainability model of production, based on natural processes which benefit the natural environment.	
h.	Kaizen and zero defects are central principles of any total quality culture.	
i.	The 'Kitemark' is a quality assurance standard recognised throughout the world.	
j.	An objective of quality assurance is to reduce the need for huge research and development spending.	
k.	The implementation of total quality management tends to reduce the level of employee motivation.	
l.	Kaizen usually involves the implementation of quality circles.	

Task 3: Explanations

a. Explain how each of the following cases outlines poor quality:

i. Poor customer service at the cinema

ii. A laptop that keeps breaking down

iii. Food that is overcooked in a restaurant

b. Explain which of the following is least likely to be a measure of quality.

A. Reliability

B. Staff turnover

C. Safety

D. Efficiency

c. Explain two costs to a firm that strives to achieve quality assurance.

d. Explain two advantages to a washing machine manufacturer that is accredited with international quality standards certification such as the ISO 9000.

Task 4: Multiple choice

1. Which of the reasons below does not explain why quality is important to a business?
 - A. Quality is essential in order to satisfy customers
 - B. Quality can provide a competitive advantage to the business
 - C. Quality raises the confidence level of customers
 - D. Quality means less stress to employees due to the reduced workload
2. A product that serves its purpose in fulfilling a customer's need or desire is known as
 - A. Fit for purpose
 - B. Quality management
 - C. Quality assurance
 - D. Lean production
3. The customer's perception of product quality is ultimately measured by
 - A. Price
 - B. Image
 - C. Value for money
 - D. Excellence
4. The effect of substandard quality includes
 - A. Improved customer relations
 - B. Higher standards of customer services
 - C. Higher wastage levels
 - D. Lower costs of production
5. Which benefit does not apply to lean production?
 - A. Reduced costs of holding inventory
 - B. Fewer mistakes being made
 - C. Flexibility in meeting sudden changes in consumer demand
 - D. Improved quality assurance
6. Which of the following is not a method of lean production?
 - A. Quality circles
 - B. Just-in-time production
 - C. Mass production
 - D. Kaizen

7. Which of the following is not a method of waste minimisation?
- A. Total quality management
 - B. Cradle to cradle manufacturing
 - C. Just-in-time production
 - D. International quality standards
8. An essential feature of total quality management is
- A. High production levels
 - B. Zero defects
 - C. Social responsibilities
 - D. Andon
9. The use of traditional methods to inspect quality against required standards is known as
- A. Benchmarking
 - B. Quality control
 - C. Kanban
 - D. Scientific management
10. Which statement does not apply to kanban as a method of lean production?
- A. It is Japanese for 'visual card'
 - B. Each item or component in the production process must have a kanban
 - C. It requires continuous improvement in the production process
 - D. It shows workers what is to be produced, how much of that item is to be produced and by when it needs to be produced