

Q.P. 19739

Solution set 6

Q1 A

1. Manufacturing
2. Continuous
3. Standardization
4. DMADV
5. Process
6. Job
7. Kepner and Tregore
8. 6 sigma
9. Cause and Effect diagram
10. Land



Q1 B

A		B	
1)	Genichi Taguchi	a)	Quality Engineering
2)	PokaYoke	b)	Mistake Proofing
3)	Lean Production	c)	Use less of every factor of production
4)	Work study	d)	Time and Motion Study
5)	Cause and effect diagram	e)	Identify the root cause
6)	Labour Productivity	f)	Output / man- hour worked
7)	Continuous Production	g)	Flow Production
8)	COPQ	h)	Cost of Poor Quality
9)	Production	i)	Transformation of raw materials into finished goods.
10)	Material Productivity	j)	Output / Raw Material Consumed
		k)	KANBAN



Q2

Ans A Scope of Production Management

1. Product selection and design.
2. Process selection and planning
3. Plant Location
4. Plant Layout
5. Capacity Planning
6. Production Planning and control
7. Inventory Control
8. Quality assurance and Control.

Ans B Scope of Product development

1. Product decision.
2. Size and design of product
3. Name of Product
4. Price of Product
5. Brand, Packing, Labelling
6. New uses of Product
7. Guarantee and after sales service

OR

Ans A Ways to improve productivity

1. Attractive salaries
2. Better quality machines
3. Good working conditions
4. Reduction in wastage
5. Quality materials
6. Proper Inventory management
7. Good Plant Layout
8. Maintenance of Machines
9. Incentives to Employees
10. Better facilities

AnsB. Factors affecting plant location

1. Availabilty of Raw material
2. Fuel and power
3. Transport
4. Market
5. Labour



6. Political Stability
7. State assistance
8. Health of community

Q3

A Importance of Purchase Management

1. Adequate supply
2. Cost
3. Import substitution
4. Timely execution of projects
5. Continuity of production
6. Cost of materials

B Ways to calculate Productivity

- Total Productivity
- Partial Productivity
- Land Productivity
- Labour Productivity
- machine Productivity
- Capital Productivity
- Material Productivity

OR

A Quality Management & its characteristics
THE 8 PRINCIPLES OF QMS

PRINCIPLE 1: CUSTOMER FOCUS

PRINCIPLE 2: LEADERSHIP

PRINCIPLE 3: PEOPLE INVOLVEMENT

Principle 4: Process Approach

PRINCIPLE 5: SYSTEMATIC APPROACH TO MANAGEMENT

PRINCIPLE 6: CONTINUAL IMPROVEMENT

PRINCIPLE 7: FACTUAL APPROACH TO DECISION MAKING

PRINCIPLE 8: MUTUALLY BENEFICIAL SUPPLIER RELATIONS

B Dimensions of Product and Service Quality

- Physical dimension - Performance dimension -
- Responsiveness -
- Assurance - Tangibles -
- Empathy
- Reliability -

Q4

A Philip Crosby's Philosophy

A

Zero Defects

quality is free.

Crosby's 14-point Program - Management commitment

ad hoc zero defects committee

zero defects day

Recognition

Do it over again

B

1. Edward Deming's philosophy
2. Variation and problem solving
3. points for management
 - a. Constancy of Purpose
 - b. Cease dependence on Mass inspection
 - c. End Lowest Tender Contracts
 - d. Improve every process
 - e. Institute Training
 - f. Institute Leadership
 - g. Drive out Fear
 - h. Eliminate exhortations
4. deadly diseases of management
5. PDCA Cycle (The Deming Wheel)

OR

A

a. **Multifactor Productivity** = Output / (Labor + Materials + Overheads)

= 17,600 Units / (Rs. 10,000 + Rs. 5,200 + Rs. 20,000)

= 0.50 units

b. 2 times

c. 2.33 pages /hour

B

Factors influencing implementation of TQM

- 1) Top Management Commitment
- 2) Employee's Training
- 3) Organizational culture
- 4) Communication

Q5.

Ans A Goals of 6 Sigma

1. To reduce Variations.
2. To reduce defects.



3. To improve yield.
4. To enhance customer satisfaction.
5. To improve the bottom line.
6. To improve the top line.

Ans B Need for New product development

1. Introduction of new products
2. Improvement of existing products

OR

Ans 1.

1. Introduction
2. Growth
3. Maturity
4. Decline

Ans 2 Continuous Production System

Continuous flow production situations are those where facilities are standardised. Therefore a standardised set of procedures and sequence is followed.

1. Large volume
2. Standardised operations
3. Product Layout
4. Automatic machines
5. Fixed path material handling equipment

Ans 3. KANBAN

- an Integrated JIT System
- concept
- elements
- advantages

Ans 4

ISO 14000 and 14001

ISO 14000 is a series of environmental management standards developed and published by the International Organization for Standardization (ISO) for organizations. The ISO 14000 standards provide a guideline or framework for organizations that need to systematize and improve their environmental management efforts. The ISO 14000 standards are not designed to aid the enforcement of



environmental laws and do not regulate the environmental activities of organizations. Adherence to these standards is voluntary.

The ISO 14001 standard is the most important standard within the ISO 14000 series. ISO 14001 specifies the requirements of an environmental management system (EMS) for small to large organizations. An EMS is a systemic approach to handling environmental issues within an organization. The ISO 14001 standard is based on the Plan-Check-Do-Review-Improve cycle.

The Plan cycle deals with the beginning stages of an organization becoming ISO 14001-compliant. The Check cycle deals with checking and correcting errors. The Do cycle is the implementation and operation of the ISO 14001 standard within an organization. The Review cycle is a review of the entire process by the organization's top management. And the Improve cycle is a cycle that never ends as an organization continually finds ways to improve their EMS.

The entire process can take several months to several years depending on the size of the organization. If an organization is already ISO 9000-certified, the implementation of ISO 14001 does not take as long. When an organization is compliant, they can either register with a third-party registrar or self-declare their compliance. The ISO 14001 standard is the only ISO 14000 standard that allows an organization to be registered or "certified."

Ans 5

Split brain theory

- Meaning & features
 - Tools of lateral Thinking Theory
- Idea-generating tools
- Focus tools
- Harvest tools
- Treatment tools