

Duration: 2 1/2 Hrs

Marks:- 75

Note:- 1) All questions are compulsory.

2) Figures to the right indicate maximum marks.

**Q.1A) Multiple Choice Questions [CO1, CO2, CO3] [RO]**

[8M]

- 1) Which function typically employs more people than any other functional area?[R]
  - a) Information System
  - b) Operations
  - c) Marketing
  - d) Finance
- 2) A Measures of the success of an operation producing outputs that satisfy customers [U]
  - a) Efficiency
  - b) Effectiveness
  - c) Quality
  - d) Profitability
- 3) \_\_\_\_\_ means determining the shape standard and pattern of the product.[U]
  - a) Product Design
  - b) product process
  - c) Product Sale
  - d) Product conversion
- 4) \_\_\_\_\_ pertains to planning of the space available for production activities[AN]
  - a) Plant Layout
  - b) Plant Management
  - c) Plant Location
  - d) Product Layout
- 5) Which one of the following is not included in the 7 R's in purchasing?[R]
  - a) Quality
  - b) Production
  - c) Price
  - d) Quantity
- 6) \_\_\_\_\_ Refers to the total quantity ordered to be purchased at the lowest total cost [E]
  - a) ABC
  - b) XYZ
  - c) EOQ
  - d) Inventory Cost
- 7) \_\_\_\_\_ is the performance of the product as per the commitment mode by producer [R]
  - a) Total Quality Management
  - b) Quality
  - c) Purchase Material
  - d) Product Development
- 8) ISO stands for \_\_\_\_\_ organization for standardization [R]
  - a) Indian
  - b) Institutional
  - c) International
  - d) Internal

**Q.1B) Match the following [CO1, CO2, CO3][APPLY]**

[7M]

Group A	Group B
1. Muda	a) Selective criteria Seasonality
2. ISO 14000	b) Ishikawa
3. PDCA	c) Human Factors Consideration
4. SOS	d) Conveyors
5. Fixed Path Fixed Destination Material Handling Equipment	e) Environmental Management
6. Ergonomics	f) Consumer Products
7. Fishbone analysis	g) Deming Cycle
	h) Selective criteria Source of procurement
	i) 7 Wastes
	j) Auto Guided vehicles

**Q.2] Attempt the following [Either A&B OR C & D] {CO1&CO2}**

- a) Define production management discuss components of production Management[R, E] (8M)
  - b) Discuss steps in New product Development [u] (7M)
- OR
- c) Discuss importance of Layout? What is the requirement of effective Layout[R, Apply] (8M)
  - d) Explain Importance of purchase Management (7M)

**Q.3) Answer the following [Either A&B OR C , D & E] CO2, CO3**

- a) Describe various material handling equipments and its relevance in materials management [AN,E] (8M)  
b) Explain the objective of material Management [Apply B] (7M)

OR

- c) Solve the Following: -1) Annual demand of an item is 5400 units unit Cost is Rs.10. Inventory carrying Rate is 20% Cost of procurement is 150 Calculate EOQ.[R,Apply] (5M)

**Q3 d) Following is collected from a bearing manufacturing company (7M)**

- 1) Output per shift of 8 hrs is 1200 pieces
- 2) Sale price of each item is Rs.10 per piece
- 3) Labour Hour Charges are 300 Rs. Per hour
- 4) Material required is 60KG @RS.100 per KG
- 5) Capital Input is Rs.1000 Energy Inputs are 2000

Calculate Capital, Material, Labour, and Energy Productivity also calculate total factor productivity

**E) The information gathered from ABCPL regarding air values is as follows [R,Apply] (3M)**

Average Lead time for procurement is one week (R,Apply)

Average demand is 1000 Units per week safety stock is assumed to be 1000 units Calculate Reorder Level for air values.

**Q.4) Attempt the following [Either A&B or C& D] CO2,CO3**

- a) Define Quality System? Explain the Evaluation of ISO 9000[Reevaluate] (8M)

- b) What is Lean Thinking? Explain 3 M's of Lean (7M)

OR

- c) Discuss KepnerTregoe methodology of problem solving [Evaluate] (8M)

- d) Define Six Sigma? Explain DMAIC &DMADV [Remember, Evaluate] (7M)

**Q.5) Write short Notes:-[Any Three]**

[15M]

1) ISO 14000[R]

2) SERVQUAL [E]

3) Fish Bone Diagram [C]

4) Inventory function [R]

5) Production Management {R}

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