Note : All questions are compulsory and carry equal marks

Q1. Objectives :

A)   Fill In the blanks.   (15)

1.   whose price determine the selection of particular site?

   a) Land   b) Soil   c)Amenities   d)Technology

2.   EOQ refer to the quantity order to be purchase at the _____ total cost

   a) Material   b) lowest   c)minimum   d)maximum

3.   What is used to distinguish between fact and opinion

   a) Check sheet   b) cause form c) survey test d) Questionnaire

4.   Which type of discount is provided for bulk purchase

   a) Bulk   b) consolidated discount   c) Order Discount   d) Cash discount

5.   What form of prize considered in the deming application on prize?

   a) Mark list   b) Check list   c) work statement   d) price list

B)   Match the following.

Column A	Column B
1. Work study	a) Order quantity divided by 2
2. TQM	b) Problem solving technique
3. Quality circle	c) Benchmark
4. Work sheet	d) Problem saving methodology
5. Average inventory	e) Time and motion study

C)   Concepts :

1.   Productivity   2) Lean Thinking   3) Hedging   4) A-B-C classification 5) 5'S Method

Q2 a. Explain the stages in production design ?   (08)

   b. Types of plant layout?   (07)

OR

Q2. what are different factors affecting plant location?   (15)

Q3. Explain the various types of material handling systems?   (15)

OR

Q3. a) A manufacturer buy certain components from suppliers at RS. 30 per unit.Total annual needs
   are 800 units. The following further data are available: (07)

1.   Annual return on investment 10%   2. Rent, Insurance, Taxes per unit per year Re.1.00

3.   Cost of placing an orders. 100   4. Determine the EOQ.

OR

b) From the following data for the last 12 months, compute the 1.2

2. Minimum usages in the month   200 units

3. Average usage in month   225 units

4. Time lag in procurement of material : maximum 6 month; minimum 2 month; reordering quantity 750units

Q4.a. Explain the importance of TQM?

(7)

  b Explain the process of kaizen?

(8)

OR

Q4 .a) If a factory produces Rs. 1 lakhs worth of products by utilizing a capital Investment of Rs.20000 and labour of Rs. 30000 than what will be the total factor productivity.   (5)

b)Given data

(10)

Month	Input(machine hour)	Output (no of units)
September	90000	99000
October	1000000	1000000
November	150000	135000

Does the given data indicate a rise of productivity or mearly increase in production?

Q5.What DMAIC and DMADV methodology of six sigma implementation?   (15)

OR

Q5. Explain the Malcolm Baldrige National Quality Award?

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