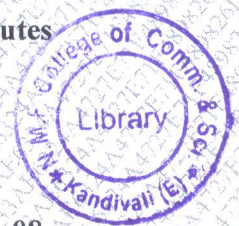**Q.P. Code: 31195**

Maximum Marks: 75   **Duration: 2 Hours & 30 Minutes**

Note: 1) All questions are compulsory, Subject to internal choice.
   2) Figures to the right indicate full marks.

Q 1 A) Fill in the Blanks (Any 8)   08

1) _____ is the process of transforming raw material into finished goods for sale. (Marketing / Production / Packaging)

2) _____ means determining the shape, standard & pattern of the product. (Product Design / Product Process / Product Sale)

3) _____ is the ratio between what is produced to what is required to produce it. (Quality / Quantity / Productivity)

4) ISO stands for _____ organization for Standardisation. (Indian / International / Institutional)

5) _____ is the art & science of moving, packaging & storing of material in any form. (Material Management / Material Handling / Material Procuring)

6) _____ refers to the quantity ordered to be purchased at the lowest total cost. (EOQ / ABC / XYZ)

7) _____ pertains to planning of the space available for production activities. (Plant Layout / Plant Location / Plant Management)

8) _____ should be aimed at the needs of the customer, present & future. (Quantity / Quality / Productivity)

9) Under _____ process, 99.99966% of products created are expected to be statically free from defects. (Kaizen / Six Sigma / Lean)

10) _____ defines quality in terms of the social loss, loss to producer & consumer. (Deming / Taguchi / Kepner & Tregor)

Q 1 B) Match the Column (Any 7)   07

	Group A		Group B
1	Process Production	A	Appraisal Cost
2	Batch Production	B	Failure Cost
3	MBNQA	C	Paints & Vehicles
4	Deming Prize	D	Crude Oil & Sugar
5	Cost of Poor Quality	E	Based on Nature of Supplier
6	Cost of Good Quality	F	For American Company
7	GOLF Analysis	G	For Japanese Company
8	SDE Analysis	H	Minimize Waste
9	Lean Thinking	I	To change for better
10	Kaizen	J	Based on Problem of Procurement

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Q 2 A) Define Production Management. Discuss the Components of Production Management.　　08

B) Explain the characteristics of a good product design.　　07

OR

C) Define Six Sigma. Explain the DMAIC & DMADV methodology in brief.　　08

D) Discuss in brief procedure for registration for ISO certification.　　07

Q 3 A) Explain in brief various types of Material handling Equipments.　　08

B) Explain the objectives of Materials Management.　　07

OR

C) Define Quality. Explain the characteristics of Quality.　　08

D) Discuss the service dimensions of Quality.　　07

Q 4 A) Explain in brief any 4 Inventory Control Techniques.　　08

B) What are the types of Plant Layout?　　07

OR

C) Explain Taguchi's Quality Engineering.　　08

D) Explain Edward Deming's Philosophy & approach to Quality.　　07

Q 5 A) ABC Ltd. Purchases computer chips at the rate of Rs. 50 each. The annual consumption of chip is 36,000 units. If the ordering cost is Rs.250 per order & carrying cost is 25%p.a., what would be the EOQ and Total Cost? If the supplier offers a discount of 10% for ordering 6,000 units. Per order, do you accept the discount offer?　　08

B) Calculate partial & Total Productivity.　　07

Output	1000,000	Raw Material	175,000
Labour	150,000	Electricity	50,000
Capital	200,000	Other Misc. Exp.	25,000

OR

C) Write a Short Notes : (Any 3)　　15
1. Quality Circle
2. Lean Thinking
3. Production System
4. Deming's Application Prize
5. Ishikawa Fish Bone Diagram

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