

Duration: 2 ½ hours

Maximum Marks: 75

N.B.: 1) All questions are compulsory.

2) Figures to the right indicate full marks.

Q1) a) Fill in the blanks (Any 8):

8 Marks

- 1) Productivity is the quotient obtained by _____ output by one of the factors of production.
a) Dividing b) Subtracting c) Multiplying d) Adding
- 2) Productivity is the _____ of all available resources.
a) Optimization b) Maximization c) Legalization d) Utilization
- 3) There are _____ types of production systems.
a) Two b) Four c) Six d) Five
- 4) The flow of production is not continuous in _____ production system.
a) Intermittent b) Mass c) Flow d) Variety
- 5) Volume of _____ is generally small in intermittent production system.
a) Production b) Consumption c) Input d) Variety
- 6) ISO stands for International Organization for _____.
a) Standardization b) Service c) Sale d) Standard
- 7) Productivity is the quotient obtained by dividing _____ by one of the factors of production.
a) Output b) Input c) Quality d) Cost
- 8) _____ is the optimization of all available resources.
a) Productivity b) Quality c) Efficiency d) Variety
- 9) Kaizen is the practice of _____ improvement.
a) Continuous b) Break c) Quick d) Non-Continuous
- 10) The products are customized under _____ production system.
a) Job b) Batch c) Mass d) Continuous

Q1) b) State whether the following are True or False (Any 7):

7 Marks

- 1) Volume output is generally small in case of job production system.
- 2) Batch production is the manufacture of a product in lots at intervals.
- 3) Product development means devising a product to meet the exact requirement of the market.
- 4) Staple products are the low prices products that consumers buy on a regular basis.
- 5) Product design means determining the shape, standard and pattern of the product.
- 6) Plant location refers to area where the plant will operate to produce goods or services.
- 7) Lean thinking is a decision making business methodology used in automotive industries.
- 8) Aircraft manufacturing uses fixed position layout.
- 9) Process layout is known for its flexibility.
- 10) Line layout is the arrangement of machines and equipment in a sequence in which they would be used in the manufacturing process.

Q.2 a) What are the functions of a production managers? 8 Marks

b) Explain continuous production system with examples. 7 Marks

OR

a) What are the characteristics of good product design? 8 Marks

b) Explain the objectives of production management. 7 Marks

Q.3 a) State and explain the factors affecting product quality. 8 Marks

b) Define productivity & explain different ways to improve productivity. 7 Marks

OR

a) Explain the principles of quality management. 8 Marks

b) Explain the concept of quality circle & quality assurance. 7 Marks

Q.4 a) Explain fourteen points of Deming's philosophy of quality. 8 Marks

b) What are the principles of Total Quality Management? 7 Marks

OR

a) Explain seven Quality control tools. 8 Marks

b) Write in detail about Kaizen's philosophy and approach to quality. 7 Marks

Q.5 a) Discuss how lateral thinking provokes creativity. 8 Marks

b) Explain the following terms: 7 Marks

1. Muri 2. Mura 3. Muda

OR

Q5) Write a Note on **any three** from the following: (5 Marks each) 15 Marks

- 1) DMAIC
- 2) Kanban
- 3) Job Production System
- 4) Product Life Cycle
- 5) Ergonomics
