

Unit - 1

Question bank

2-Mark Questions:

1. Define manufacturing model.
2. What is the difference between physical and mathematical models?
3. List 2 advantages of using manufacturing models.
4. What is the purpose of a mathematical model in manufacturing?
5. Explain the concept of a prototype.
6. What are the limitations of physical models?
7. What is the role of simulation in manufacturing models?
8. Mention 2 types of mathematical models used in manufacturing.
9. How can models help in decision-making in manufacturing?
10. What is the significance of model validation?

16-Mark Questions:

1. Discuss in detail the various types of manufacturing models with suitable examples.
2. Explain the process of model building in manufacturing. Elaborate on each step involved.
3. Compare and contrast the advantages and disadvantages of physical and mathematical models in manufacturing.
4. Describe the role of mathematical models in optimizing production processes. Provide specific examples.
5. Discuss the application of simulation techniques in manufacturing modeling. Explain the benefits and challenges of using simulation.
6. How can manufacturing models be used to improve product design and development?
7. Explain the concept of virtual prototyping and its significance in modern manufacturing.
8. Discuss the challenges and limitations associated with the use of manufacturing models.
9. How can the accuracy and reliability of manufacturing models be ensured?
10. Describe the future trends in manufacturing modeling and their potential impact on the industry.