

AMPR21 COMPUTER AIDED PRODUCT DESIGN

UNIT-1 COMPUTER GRAPHICS FUNDAMENTALS

- 1.1 Computer graphics- applications- principals of interactive computer graphics
- 1.2 2D, 3D transformations- projections- curves- Bezier, B-Spline and NURBS- Concepts.

UNIT-2 GEOMETRIC MODELING

- 2.1 Geometric Modeling- types
- 2.2 Wire frame, surface and solid modeling
- 2.3 Boundary Representation, constructive solid geometry
- 2.4 Graphics standards- assembly modeling- use of software packages

UNIT-3 PRODUCT DATA MANAGEMENT

- 3.1 Product Data Management- concepts- Collaborative product design and commerce
- 3.2 Information Acquisition- Sourcing factor- manufacturing planning factor
- 3.3 Customization factor- Product life cycle management.

Reference Books:

1. Biren Prasad, Concurrent Engineering Fundamentals Vol.11, Prentice Hall, 1997.
2. James G.Bralla, Handbook of Product Design for Manufacturing, McGraw Hill, 1994
3. David F.Rogers.J, Alan Adams, Mathematical Elements for Computer Graphics, McGraw Hill, 1990.

