UNIT 1

UNIT 2: PRE PRESS

UNIT 3: IMAGE PREPARATION
Conventional Methods: Plate Chemistry and Processing. Positive, Negative plates - Base materials & properties — Aluminium, Stainless steel, Copper, Chromium, Nickel, Poly masters and paper masters, Graining — types, Contact angle and wettability, Anodisation — Process, Plate chemistry — Light source — Types — advantages, disadvantages - Desensitizing process, gum, developing inks, lacquers and asphaltum, Quality Control Aids., Digital — Computer to Plate — Imaging for lithography: Computer to plate (CTP) and Computer to press systems, their architecture, workflow, equipments used, type of plate used — silver halide, thermal fuse, photopolymer plates and their structures and technique of imaging — laser, UV,
thermal imaging. Computer to Polyester Plate (CTPP) and technique of imaging, quality control devices.

Imaging for gravure Process: electromechanical engraving of gravure cylinders, equipments used, engraving with single and multiple head engravers, digital workflow. Laser cutting of gravure cylinders, type of plastic material used for the laser cutting cylinder, system architecture and workflow, quality Control. Imaging of flexography: Laser engraved design rolls for continuous patterns, plate types — Rubber and Polymer and production of design rolls, laser engraving techniques. Cushion Core photopolymer plates, developments in special construction photopolymer plates, equipment used, and quality aspects. Imaging for screen printing: Imaging on cylindrical screens, laser engraving of rotary screens, equipment and process used, imaging technique, materials of cylindrical screens and quality aspects.

UNIT 4: PRESS:

UNIT 5: POST PRESS AND CONVERTING OPERATIONS:
Production Flow in Print Finishing, Folding — Types of Fold for Sheet and Web, Methods of Feeding and Delivery, Cutting Machine — Parts, Types of Cutting Machine, Knife, Mechanism and maintenance of Guillotines, Gathering and Securing: Principles of Gathering and Types of Machines, Securing, Stitching and Sewing — Types, Miscellaneous Operations — Edge Treatment, Case making,
UNIT 6: PRINTING MATERIALS:

UNIT 7: PACKAGE MATERIALS AND TECHNOLOGY:

UNIT 8: ADVERTISING, SCHEDULING AND COST ESTIMATION:
Advertising — Introduction, Advertising planning, Media, Production and Co-ordination. Scheduling — Concept of scheduling and its important, Sequencing, Inventory Management, Materials and Capacity requirement planning and network models in
connection with printing industry. Cost Estimation — Basic concept of costing, Pricing, Estimation and Investment analysis — Cost estimation for printing materials and for different printing process in respect to various print jobs.

**UNIT 9: PUBLISHING:**

**UNIT 10: QUALITY CONTROL IN PRINTING:**