

## **2.15 31535 PLANNING AND COLOUR SEPERATION TECHNOLOGY**

### **UNIT-1 LIGHT AND COLOUR**

- 1.1 Electromagnetic waves, visual appreciation.
- 1.2 Properties of colour, colour perception.
- 1.3 Additive & subtractive principles of colour synthesis.

### **UNIT-2 EQUIPMENT'S AND MATERIALS**

- 2.1 Camera essentials.
- 2.2 Filters, filter factor, filter ratio.
- 2.3 Halftone screen, special purpose, screens screen angles, AM Screening, FM Screening.
- 2.4 Piezography : Introduction and uses
- 2.5 Other modern printing techniques.

### **UNIT-3 QUALITY CONTROL AIDS**

- 3.1 Copy preparation and evaluation.
- 3.2 Tone and colour control.
- 3.3 Grey scale, register marks, register punch, Colour Patches.

### **UNIT-4 COLOUR SEPARATION**

- 4.1 Principles of colour reproduction.
- 4.2 Methods of colour separation: direct colour separation and indirect colour separation.
- 4.3 Exposure control system.
- 4.4 Evaluation of colour separations.

### **UNIT-5 COLOUR CORRECTION**

- 5.1 Basic principles of colour correction
- 5.2 Colour correction methods: manual colour correction, photographic colour correction,
- 5.3 Single overlay, two overlay, high light, premask, camera back masking, quality control mask, under colour removal.

### **UNIT-6 ELECTRONIC COLOUR SCANNER**

- 6.1 Principle of scanning, Principles of colour.
- 6.2 Electronic colour scanner: Working principle and functions of a colour scanner.
- 6.3 Electronic colour separation: scanner programming, scanner operation and evaluation of separations through scanner.

### **UNIT-7 MISCELLANEOUS CAMERA TECHNIQUES**

- 7.1 Duotone negative making.
- 7.2 Rescreening of halftone prints.
- 7.3 Preparation of halftone tints.

7.4 Line & halftone combination work.

7.5 Dropout negative-making.

## **UNIT-8 PROOFING**

8.1 After treatment of negative.

8.2 Prepress proofing, needs for prepress proofing.

### **Reference books:**

1. Hentzel, Fred Ray Blair and Tom Destree, Graphic Arts Photography: Black and White, GATF,U.S.A.
2. Eric Chambers, Manual of Graphic reproduction for Lithography, Litho Training Services Ltd., London and Manchester, 1979.
3. Ekald Fred Noemer, The Handbook of Modern Halftone Photography, Perfect Graphic Arts, Demarest.

