

## **GROUP-42- Section Holder/ Layout Artist cum Paster**

### **(Level- Matric+ Dip in Printing Technology)**

1) General awareness, Reasoning, Mathematics, Science, History including Haryana related history, current affairs, literature, Geography, Civics, Environment, Culture etc.-

**(Weightage 20%)**

2) Computer terminology, Fundamentals, word software, excel software, Power point, internet, web browsing, Communication, emails, downloading and uploading data on websites etc. -

**(Weightage 10%)**

3) Subject related syllabus-

**(Weightage 70%)**

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#### **A) IMAGE REPRODUCTION TECHNOLOGY:**

i) Basic principles of reproduction photographyii) Halftone photographyiii) Contrast control

iv) Color Reproduction

#### **B) PAPER AND INK TECHNOLOGY**

i) Paper- Introductionii) Recycled paperiii) Printing Inksiv) Security printing Ink

#### **C) FLEXOGRAPHY TECHNOLOGY**

i) Introduction to Flexographyii) Image carriers for flexographyiii) The Printing Pressiv) Mounting and Proofingv) Flexography and Bar-codingvi) Beyond the Horizon- Tomorrows Flexography

#### **D) APPLIED PHYSICS**

i) Newton's laws and their applicationsii) Work energy and conservation lawsiii) Holography

iv) Motion of rigid bodiesv) Viscosityvi)Surface tensionvii) Elasticity

#### **E) Advertising**

i) Introduction ii) Planning to executioniii) Visualization process

iv) Ad Agency & Media, Trends, Structure & Functions of Ad Agency

#### **F)PRE-PRESS TECHNOLOGY**

i) Pre-press Processes ii) Colour Reproductioniii) Colour Separating methodsiv) Press proofing etc.

#### **G)COMPUTER GRAPHICS**

i) Basic Conceptii) The CRTiii) Fundamental concepts of digital image processing

iv) Color model and color applicationsv) Illumination model and surface rendering method

#### **H) GRAVURE TECHNOLOGY**

i)Gravure Introduction ii) Gravure Doctor blade assembly

iii) Gravure Press and Its componentsiv) Gravure Substrates

#### **I) WEB OFFSET TECHNOLOGY**

i) Development and growth of web offset pressii) Components of web offset press

iii) Inking systems and dampening systems for web offsetiv) Web Control v) Auxiliary equipment

vi) Web-paper, Plate and blanketsvii) Dry Offset

viii)Introduction to types of drives used in web offset machines, Brief introduction to control panels of the web offset machines, Folders

#### **J) APPLIED CHEMISTRY**

i) Thermodynamicsii) Water & its treatmentiii) Corrosion and its prevention

iv) Polymers and Polymerization

#### **K) Sales and Marketing**

- i) Introduction
- ii) Marketing
- iii) Consumer Behavior
- iv) Market Segmentation

#### **L) Binding and Finishing Technology**

- i) Introduction to 'Binding ' and 'Finishing'
- ii) Structure of a Book
- iii) Securing Methods, End Papers
- iv) Finishing Operations
- v) Binding & Finishing Machines

#### **M) PRINTER'S SCIENCE**

- i) Colloids, Theory of Electro deposition, Introduction to Organic compounds
- ii) Introduction of Photo chemistry, Humidity, Surface characteristics in printing, pH
- iii) Photometry
- iv) Optical Instruments, Effect of light

#### **N) BOOK AND NEWSPAPER PUBLISHING**

- i) Book Publishing -Introduction
- ii) Technical aspects of production
- iii) Introduction to Newspaper organization
- iv) Distribution channels

#### **O)QUALITY CONTROL IN PRINTING AND PACKAGING**

- i) Introduction
- ii) Management Consideration
- iii) Materials Control
- iv) Quality Control Instrumentation
- v) Introduction to ISO:9000 and ISO:14000 series

#### **P) DIGITAL PRINTING**

- i) PRINCIPLES AND BASIC COMPONENTS
- ii) ELECTROPHOTOGRAPHY, IONOGRAPHY & MAGNETOGRAPHY
- iii) INK JET & NANOGRAPHIC PRINTING
- iv) Networking

#### **Q) SECURITY PRINTING**

- i) Introduction
- ii) Inks and Brand Security Inks
- iii) Security Products
- iv) Applications

#### **R) COSTING AND ESTIMATING**

- i) Printing Company Organization
- ii) Human Resource Management Concepts
- iii) Estimating
- iv) Costing

#### **S) MANAGEMENT AND ENTREPRENEURSHIP**

- i) Printing Industry in India, Management
- ii) Human resource management
- iii) Entrepreneurship
- iv)Forms of Ownership

**Important Note: The Weightage as mentioned against the syllabus is tentative & may vary.**