

OFFSET PRINTING MACHINE OPERATOR
GRADE II IN PRINTING DEPARTMENT -
SYLLABUS

Cat.No: 269/2023

1. **INTRODUCTION OF PRINTING** **(5MARKS)**
 - History, Development, Classifications
 - Print production work flow
 - Division of Printing industry
 - Print media

2. **QUALITY CONTROL IN PRINTING** **(5MARKS)**
 - Device and working

3. **COLOR IN PRINTING** **(5MARKS)**
 - Importance , color mixing
 - Primary and secondary color in printing
 - CMYK and RGB colors
 - Color separation

4. **PRE PRESS** **(20MARKS)**
 - a) **GRAPHIC DESIGN**
 - Computer and network basic
 - Typography
 - Word processing
 - Image editing software
 - Publishing and E' publishing

 - b) **PAGE LAYOUT AND IMPOSITION**

- Manual preparation
- Preparation with software
- Digital pre - press, work flow

c) IMAGE CARRIERS PREPARATION (PLATE MAKING)

- Manual preparation
- Computerized preparation (CTP, CTF, NIP)
- Types of plates, plate related problems

5. **PRESS WORK**

(35marks)

a) HISTORY AND DEVELOPMENT IN OFFSET

b) TYPES OF OFFSET MACHINES

- Sheet fed, web, CIC, multi color, perfecting, water less, dry, digital

c) PAPER

- History, types, making process
- Estimation, calculations, storage

d) INK

- History, types, making process
- Estimation, calculations, storage
- Drying methods

e) CHEMICALS

- Dampening solution
- Roller wash, blanket wash
- Blanket lift, image remover

- Plate developer, gum

f) MATERIALS - BLANKET AND ROLLERS

- Types, storage
- properties, structure

g) SHEET FED OFFSET MACHINES

- Types, parts, Units and function
- Operation, work flow
- Manufactures

h) WEB OFFSET

- Types , parts, Units and function
- Operation, work flow
- Press console

i) FLEXOGRAPHY

- Basic, plates, units, types
- Ink and substrates

j) GRAVURE

- Basic, Units, parts and function
- Cylinder preparation methods
- Ink and substrates

k) SCREEN PRINTING

- Types, principles and process
- Applications
- Tools, materials and substrates

l) GREEN PRINTING

- Basic and concepts

m) IMPACT AND NON IMPACT PRINTING

- Basic and concepts

6. **PRE MAKE READY AND MAKE READY** (5MARKS)

- Step by step operations

7. **PRESS MAINTENANCE AND TROUBLE SHOOTINGS**
(5MARKS)

- Press maintenance
- Safety devices
- Paper problems and trouble shootings
- Ink problems and trouble shootings
- Printing problems and trouble shootings
- Pneumatic problems

8. **BINDING** (5MARKS)

- Classifications and methods
- Styles
- Materials
- Parts of a book
- End papers
- Paper calculations

9. **FINISHING OPERATIONS** (5MARKS)

- Types of covering and finishing
- Operations
- Modern finishing operations

10. **PACKAGING AND CARTON MAKING** (5MARKS)

- Operations

- Types of cartons and their making

11. **BASICS OF ENGINEERING**

(5MARKS)

- Electronics
- Mechanical
- Engineering drawing

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper