

**DETAILED SYLLABUS FOR THE POST OF OFFSET PRINTING MACHINE
OPERATOR
GRADE II IN PRINTING DEPARTMENT
Cat.No: 016/2025**

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, stricture

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

I) 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