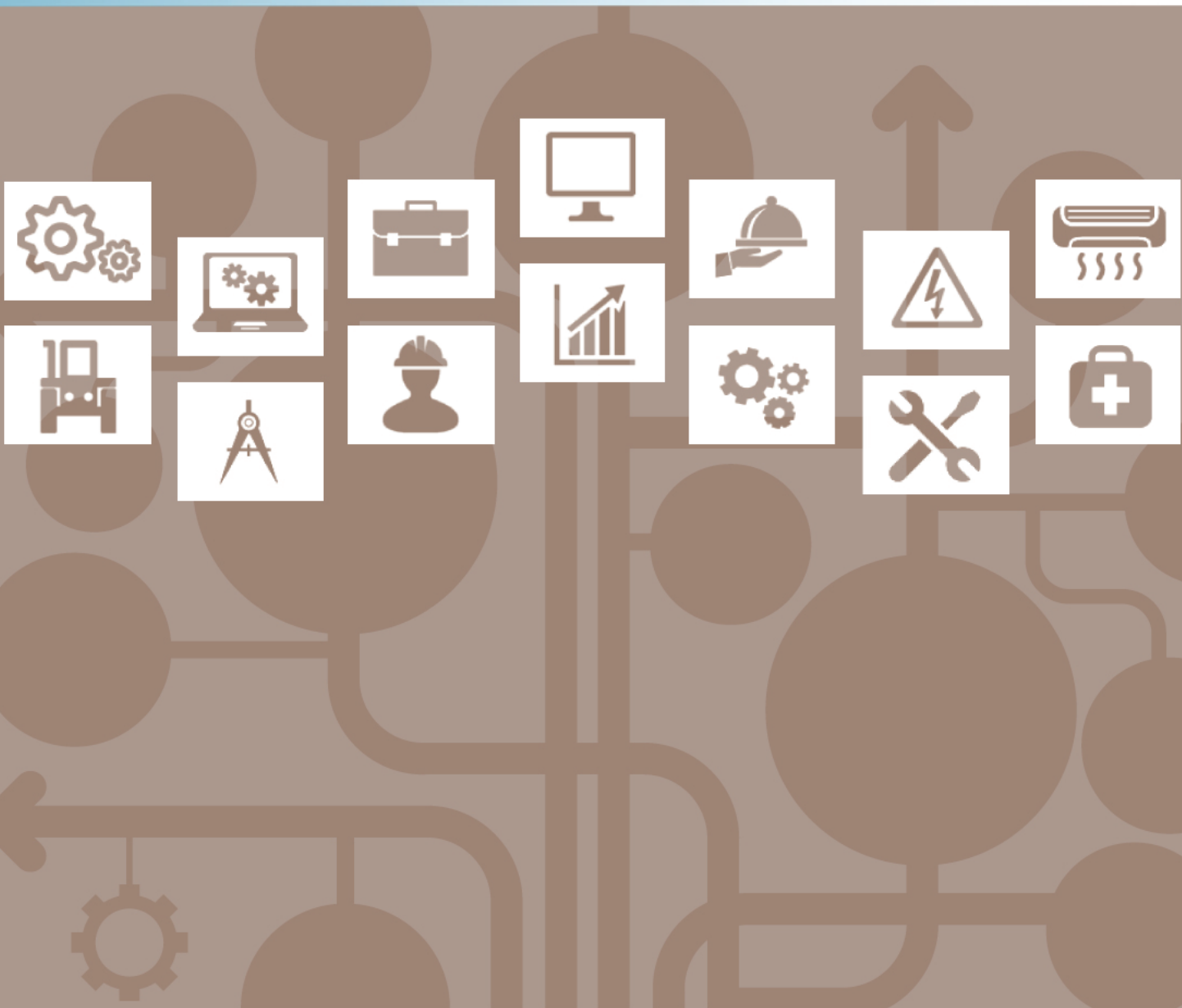




Entry Level Assessment Blueprint

Graphic Production Technology



Test Code: 4342 / Version: 01

Specific Competencies and Skills Tested in this Assessment:

Introduction to Printing

- Demonstrate knowledge of relevant OSHA standards, environmental protection, and safety procedures
- Explain the importance of quality control procedures and consistency of production, as it relates to customer satisfaction
- Identify workflow, processes (including software), and equipment in graphic communications
- Demonstrate mathematical concepts relating to print production, estimating materials/service costs, and preparing work orders
- Understand legal aspects of copyrighted materials
- Identify and apply printing terminology
- Describe various methods of graphic reproduction (e.g., offset, screen, digital printing, flexography, letterpress)

Electronic Publishing, Pre-Press, and Output

- Identify and demonstrate principles of layout and design
- Identify type terminology, styles, and uses
- Identify proofreader's marks, proofread and mark-up copy
- Make conversions using printer systems of measurement
- Demonstrate steps in the creative process (e.g., thumbnail, rough, comprehensive)
- Crop, scale, and manipulate images
- Prepare elements for a variety of imposition layouts
- Demonstrate basic computer knowledge (e.g., storage, troubleshooting, peripherals)
- Demonstrate proficiency in computer graphics and page layout applications
- Demonstrate knowledge of pre-flighting electronic files
- Output color separations from digital files
- Adjust work to meet the needs of the customer
- Demonstrate ability to calculate paper costs for job
- Differentiate between web, multimedia, and print graphics
- Exhibit knowledge of PDF workflow
- Demonstrate knowledge of different color modes and color management (e.g., CMYK and RGB)
- Exhibit familiarity with input and output devices

Specific Competencies and Skills continued:

Offset Printing

- Identify components of an offset press and demonstrate knowledge of operating procedures
- Demonstrate understanding of press chemistry (e.g., ink tack, fountain solutions, solvents, dryers)
- Describe general maintenance and cleaning of an offset press
- Demonstrate knowledge of Pantone Matching System® (PMS) colors
- Understand the importance of printing in register and trapping

Digital Printing

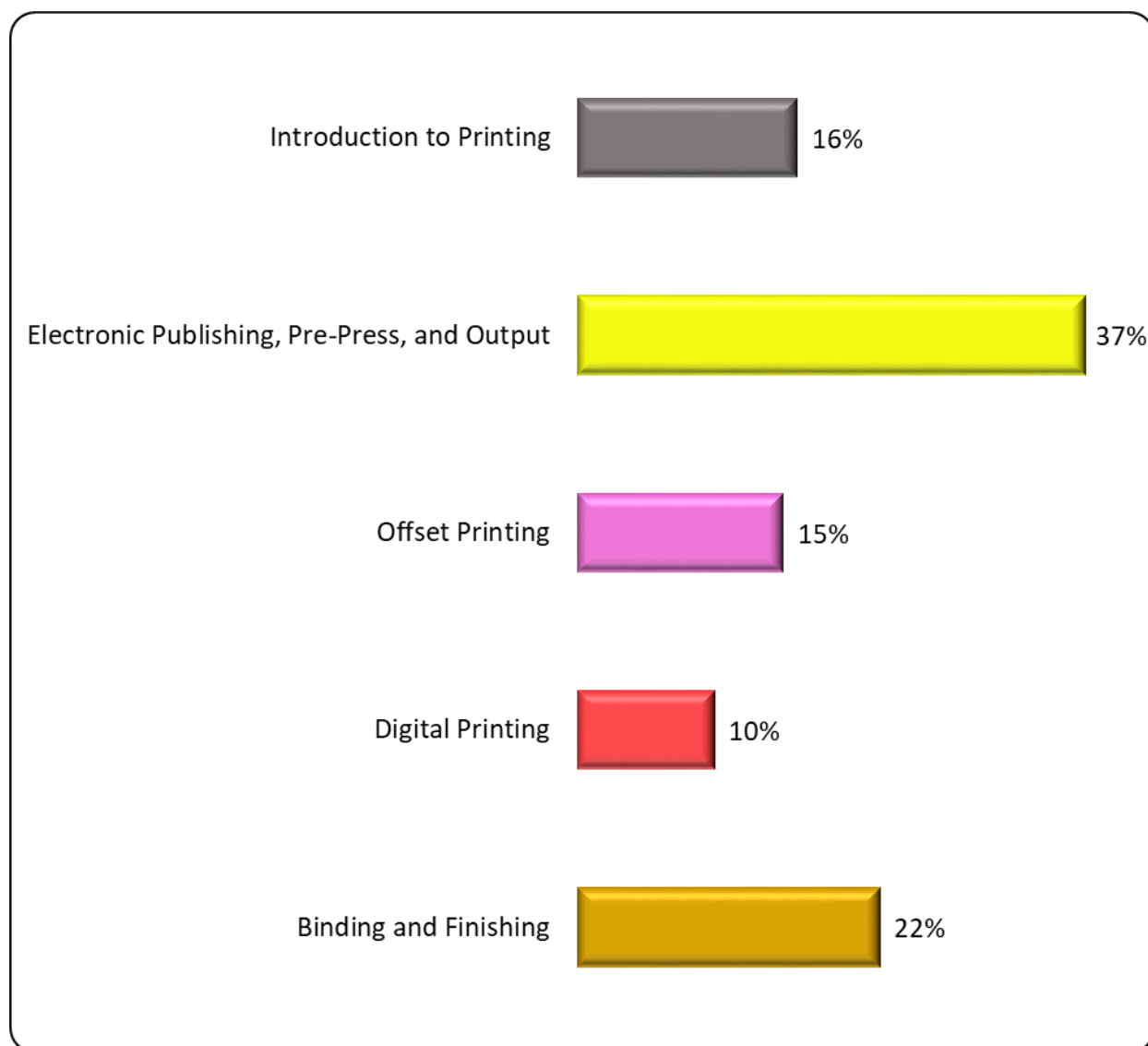
- Identify components of digital output devices and demonstrate knowledge of operating procedures
- Demonstrate understanding of digital consumables (e.g., toner, fuser, waste)
- Describe general maintenance and cleaning of digital output devices
- Demonstrate proper handling and storing of various print paper
- Troubleshoot digital printing problems (e.g., toner scatter, paper jams)
- Explain the importance of the Raster Image Processor (RIP) device and its functions

Binding and Finishing

- Set up, adjust, and operate a paper cutter
- Differentiate between the types of folds
- Demonstrate understanding of perforating, scoring, embossing, drilling, and die-cutting
- Perform preventive maintenance on bindery and finishing equipment
- Differentiate between the types of stitches
- Explain different methods of binding and assembling (e.g., collating and gathering)
- Explain assembly of carbonless paper forms
- Calculate the number of cut sheets cut from stock parent sheets
- Identify properties and use of various paper stocks
- Differentiate between spot coating, flood varnish, and UV coating
- Identify different packaging procedures (e.g., shrink wrapping, padding)

Written Assessment:**Administration Time:** 3 hours**Number of Questions:** 174**Areas Covered:**

- 16% Introduction to Printing
- 37% Electronic Publishing, Pre-Press, and Output
- 15% Offset Printing
- 10% Digital Printing
- 22% Binding and Finishing



Sample Questions:

Pre-flightting in a digital press can analyze the

- A. file resolution
- B. quality of the paper
- C. copyright
- D. calibration of the press

Type that is set around two or more sides of a picture or illustration is called

- A. copyfitting
- B. justification
- C. text wrap
- D. imposition

Screen printing is commonly used for

- A. books
- B. billboards
- C. textiles
- D. currency

A picture that is in the public domain

- A. has a copyright and may not be reproduced
- B. may be reproduced without obtaining permission
- C. can only be used for Public Service Announcements
- D. requires specific permissions prior to reproduction

Antique, smooth, and coated refer to

- A. recycled paper
- B. paper sizes
- C. paper colors
- D. paper finishes

Performance Assessment:

Administration Time: 2 hours

Number of Jobs: 2

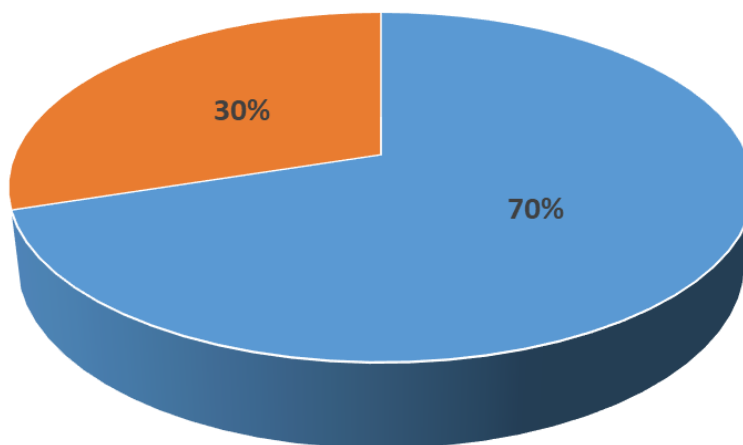
Areas Covered:

70% Design and Pre-Press

Participant will open provided graphic file, make required changes, proofread project and print.

30% Print, Shrink Wrap, Package, and Prepare for Pick-Up

Participant will print copies, cut 46 invitations, trim, and wrap two packages. Create and secure a legible label and clean work area.



Sample Job: Design and Pre-Press

Maximum Time: 45 minutes

Participant Activity: The participant will open the appropriate format of a “Coffee Cup” graphic in a specified folder and make the listed changes, save the document, create a new document with given specifications, import and scale an image, create a background, create a header, create a textbox, proofread the work, package the file, print out a comprehensive to check work, and print separations with the given details.

