



Job Ready Assessment Blueprint

Graphic Communications Technology



Test Code: 4142 / Version: 01

“Measuring What Matters”

Specific Competencies and Skills Tested in this Assessment:

Introduction to Printing

- Demonstrate knowledge of hazard communication laws and environmental protection and safety procedures
- Explain importance of quality control procedures, consistency of production, and statistical process control (SPC) as it relates to customer satisfaction
- Identify workflow, processes, and equipment in graphic communications
- Demonstrate mathematical concepts relating to print, estimating materials/service costs, and preparing work orders
- Understand legal aspects of copyrighted materials
- Understand/define printing terminology
- Describe various methods of graphic reproduction (offset, screen, intaglio, gravure, letterpress)



Electronic Publishing and Printing, 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 (thumbnail, rough, comp, mechanical, etc.)
- Crop, scale, and manipulate photographs
- Prepare elements for a variety of imposition layouts
- Demonstrate basic computer knowledge
- Demonstrate proficiency in computer graphic applications
- Demonstrate knowledge of pre-flighting electronic files
- Output color separations from digital files
- Assemble single-color, spot color, and process color jobs
- Demonstrate knowledge of personalization by geographic or other characteristics
- Demonstrate ability to calculate paper costs for job, waste included

Specific Competencies and Skills continued:

- Differentiate between web, multimedia, and print graphics
- Exhibit knowledge of PDF workflow
- Demonstrate knowledge of different color modes and color management, i.e. CMYK and RGB
- Exhibit familiarity with desktop and large format printers
- Demonstrate knowledge of scanners, cameras, plate technology, and other peripherals

Offset Press Operations

- Prepare and operate an offset press
- Demonstrate understanding of press chemistry (ink tack, fountain solutions, solvents, dryers)
- Define generic systems of an offset press
- Perform general maintenance and cleaning of an offset press
- Mix inks for color match
- Demonstrate auxiliary operations performed on press (perforation, scoring)
- Demonstrate proper handling of print stock
- Troubleshoot printing problems (scumming, pilling, chalking, roller stripping, ghosting, glazing)
- Demonstrate ability to print a second or third color in register on a second pass through an offset press



Specific Competencies and Skills continued:

Finishing and Binding Processes

- Set up, adjust, and operate a paper cutter
- Set up, adjust, and operate a paper folder
- Demonstrate understanding of perforating, scoring, embossing, and die-cutting
- Lubricate and maintain bindery equipment
- Set up and operate a stitcher
- Set up, adjust, and operate a paper drill
- Differentiate between collating, gathering, and other methods of assembly
- Explain different methods of binding
- Explain assembly of carbonless paper forms
- Calculate number of small sheets cut from large sheets
- Identify properties and use of various paper stocks
- Demonstrate understanding of packaging methods
- Demonstrate knowledge of carrier options and postal sorting

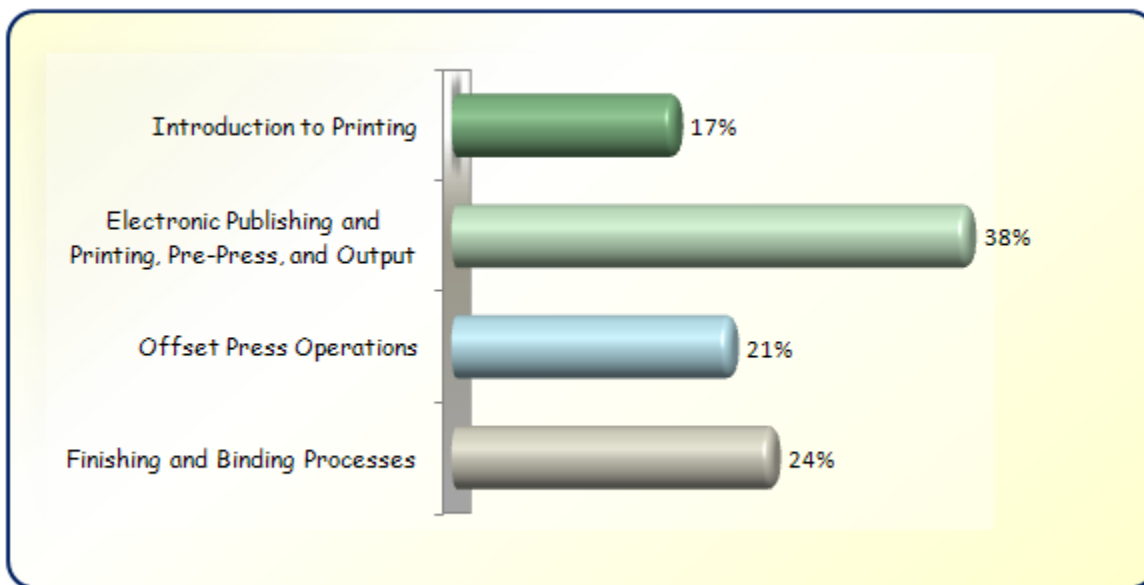


Written Assessment:

Administration Time: 3 hours

Number of Questions: 198

Areas Covered:



Sample Questions:

A circular pattern of wedges used to detect slurring on ink during printing is a

- A. star target
- B. registration mark
- C. crop mark
- D. printer's wheel

When changing from light stock to heavy stock, the press operator should

- A. increase the plate-to-roller pressure
- B. decrease the plate-to-blanket pressure
- C. decrease the impression cylinder pressure
- D. increase the blanket pressure

Inks used for four-color process color printing are

- A. transparent
- B. opaque
- C. complementary
- D. slow drying

The principle of design that refers to the visual consistency found throughout a layout is called

- A. line
- B. color
- C. emphasis
- D. unity

Prior to adjusting the cutter with a newly sharpened blade, it is important to install a new

- A. shear stick
- B. measure tape
- C. hydraulic tape
- D. pressure clamp



Performance Assessment:

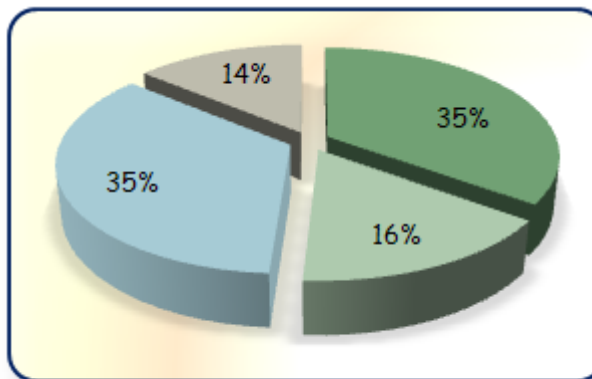
Administration Time: 2 hours and 35 minutes

Number of Jobs: 4

Areas Covered:

35% Design and Pre-Press

Procedure for planning design, adaptation of sketch, application of design principles, operation of desktop publishing system equipment, selection of software, importing and scaling of images, proofreading and specifications, output-comprehensive proof, clean up work area, and timeliness of job.



16% Generate a Plate from an Original

Handling of platemaking materials and equipment, accuracy of plate, and timeliness of job.

35% Duplicator and Press Operations

Handling of plate, handling of paper, setup of feeder, setup of register, make-ready condition of press, maintaining ink/water balance, troubleshooting during run, accuracy of adjustments, quality of sheets produced, materials and equipment clean up, and timeliness of job.

14% Finishing

Preparation of paper for trimming, handling of cutter, handling of wrapping materials and equipment, clean-up procedures, quality of trim, quality of wrap, and timeliness of job.

Sample Job: Finishing

Maximum Time: 20 minutes

Participant Activity: The participant will cut and trim the paper provided, shrink-wrap (or paper wrap) the trimmed sheets, and clean up extra scraps from work area.



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career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!