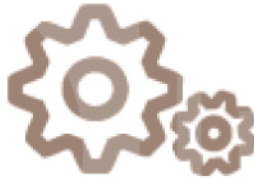


*Experienced Worker Assessment Blueprint*

*Graphics Imaging Technology*



## **Specific Competencies and Skills Tested in this Assessment:**

### **Introduction to Graphic Imaging/Printing**

- Demonstrate knowledge of hazard communication laws and environmental protection
- Demonstrate knowledge of safety procedures (personal, equipment)
- Explain importance of quality control procedures and consistency of production (SPC)
- Demonstrate understanding of the need for customer satisfaction
- Perform general maintenance/housekeeping tasks
- Read/interpret/write work orders or specifications
- Demonstrate ability to measure
- Identify processes and equipment in graphic arts
- Distinguish between color matching systems (flat color, process color)
- Identify basic types of substrates
- Calculate stock requirements
- Demonstrate problem-solving ability
- Demonstrate knowledge of job workflow

### **Electronic Imaging and Copy Preparation**

- Make conversions using printer systems of measurement
- Identify principles of design
- Identify type styles and uses
- Identify proofreader's marks
- Prepare a thumbnail sketch
- Prepare a rough layout
- Crop a photograph to dimensions
- Mark up copy
- Proofread copy
- Scale a photograph to a given area
- Prepare a dummy for multiple imposition
- Prepare a proof
- Prepare an electronic mechanical
- Demonstrate knowledge of troubleshooting electronic files
- Prepare parts of electronic file for efficient output
- Prepare electronic traps
- Identify electronic imaging components
- Match appropriate software to a given job
- Demonstrate basic computer skills
- Demonstrate proficiency in computer graphic applications to create image
- Demonstrate basic computer hardware knowledge

***Specific Competencies and Skills continued:***

- Demonstrate CD handling/care/formatting
- Demonstrate understanding of basic software terminology
- Demonstrate knowledge of output devices
- Demonstrate electronic imposition

**Reproduction Photography**

- Scale a photograph to a given area
- Crop photographs to dimensions
- Demonstrate understanding of film and chemistry concepts
- Mix lithograph darkroom chemicals
- Determine proper exposure for line copy, halftones, contacting
- Make duplicate negatives/positives
- Make a line negative
- Make a choke and spread
- Rescreen a printed halftone
- Make line and halftone reproductions using diffusion transfer materials
- Demonstrate understanding of screening/special effects concepts
- Determine densities of original copy
- Determine proper flash exposure
- Determine proper filter use
- Prepare a composite
- Use a digital camera
- Import digital photos into electronic page
- Output color separations from digital photo files
- Demonstrate knowledge of camera integrator basics
- Demonstrate knowledge of hazard communication laws
- Interpret concepts of environmental protection
- Discuss proper disposal of chemicals



**Image Assembly and Platemaking**

- Demonstrate understanding of concepts of image assembly
- Prepare dummy for multiple imposition
- Demonstrate use of the pin register system
- Make a choke and spread
- Assemble a single-color job
- Assemble a multicolor job

***Specific Competencies and Skills continued:***

- Assemble a step and repeat
- Assemble work and turn
- Assemble work and tumble
- Assemble line and halftone combinations
- Assemble multicolor halftones
- Assemble multiple screen tints
- Demonstrate appropriate proofing methods
- Determine screen angles
- Protect developed plate from oxidation
- Demonstrate understanding of photo-direct use
- Demonstrate use of gray scale
- Demonstrate use of “double burn”
- Demonstrate knowledge of types of offset plates
- Prepare a color key
- Store processed films and plates
- Assemble film output from electronic files
- Demonstrate ability to troubleshoot film output from electronic files
- Prepare laminated proofs
- Demonstrate ability to properly label flats
- Demonstrate knowledge of chemical disposal

**Duplicator/Press Operations**

- Operate a densitometer and maintain ink density levels
- Make ready and operate an offset press
- Print and maintain register
- Demonstrate understanding of press chemistry (ink track, fountain solutions, solvents, dryers)
- Mix press fountain solution
- Adjust roller pressures
- Demonstrate understanding of dampening systems
- Demonstrate understanding of procedures and equipment for adjusting press pressures
- Lubricate an offset press
- Mix inks for color match
- Prepare, install, and replace offset blanket
- Clean up and offset press
- Demonstrate auxiliary operations performed on press (perforation, scoring)
- Demonstrate understanding of stripping procedures
- Demonstrate understanding of adjusting press alignment

***Specific Competencies and Skills continued:***

- Demonstrate proper handling of print stock
- Make a color match using process screens
- Prepare/strip copy for binding (grind-off)
- Demonstrate understanding of themographic and intaglio processes
- Demonstrate understanding of offset press features
- Demonstrate understanding of offset press advantages/disadvantages
- Troubleshoot printing problems (scumming, pilling, chalking, roller stripping, ghosting, glazing)
- Adjust packing to lengthen image
- Demonstrate use of masking sheets
- Demonstrate knowledge of “green” chemicals
- Operate high-speed copiers
- Demonstrate knowledge of appropriate disposal of inks, etc.

**Finishing Processes/Shipping**

- Set up, adjust, and operate a paper cutter
- Set up, adjust, and operate a paper folder
- Demonstrate understanding of perforating, scoring, and die cutting
- Lubricate/maintain bindery equipment
- Set up and operate a stitcher
- Set up, adjust, and operate a paper drill
- Collate and gather
- Perform padding operations
- Demonstrate understanding of book binding
- Explain the meaning of JIT and UPC
- Explain assembly of carbonless paper forms
- Explain how “perfect binding” is accomplished
- Explain how plastic binding is accomplished
- Conduct test for paper grain
- Calculate number of small sheets cut from large sheets
- Demonstrate knowledge of types of folds
- Demonstrate proper hand-folding techniques
- Demonstrate understanding of embossing
- Demonstrate properties of paper stock (RH)
- Operate a numbering machine
- Demonstrate knowledge of ink jet technology
- Demonstrate understanding of packaging methods
- Demonstrate knowledge of carrier options
- Demonstrate knowledge of postal sorting
- Understand concept of “value added” service

*Specific Competencies and Skills continued:*

- Demonstrate knowledge of list management
- Demonstrate knowledge of personalization by geographic or other characteristics

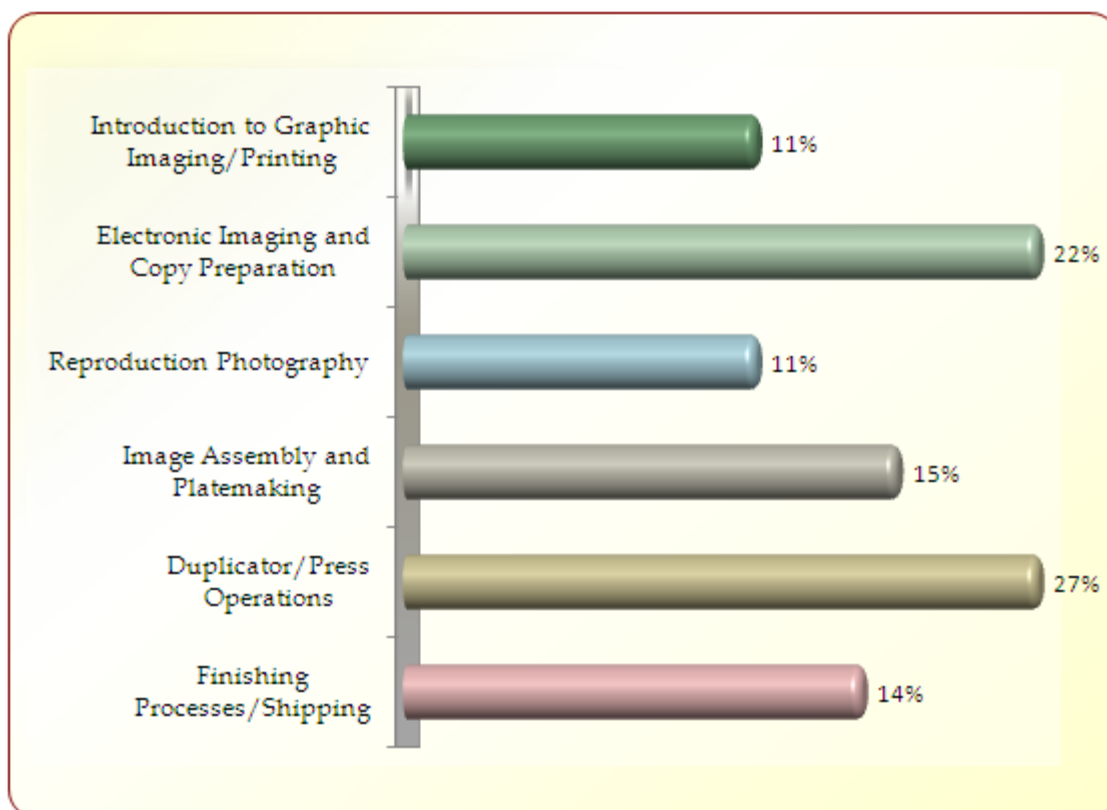


## Written Assessment:

Administration Time: 3 hours

Number of Questions: 187

### Areas Covered:



## Sample Questions:

Which is the correct order of work flow through the shop?

- A. shop foreman, production, finishing
- B. manager, production, shipper
- C. salesperson, art director, production, finisher
- D. owner, sales, production, finisher

The final products that an electronic imaging professional is expected to produce are

- A. full color portraits
- B. camera ready copy
- C. mural landscapes
- D. thumbnail sketches

Using a vacuum frame and double burning a line negative flat and a halftone or screen flat onto one piece of film is called a

- A. contact
- B. undercut
- C. composite
- D. halftone

Gum solutions are used to

- A. develop images
- B. eliminate grain
- C. protect the non-image area
- D. do all of the above

When duplicating two-sided copies by using the xerographic method, the term is

- A. two-sided copying
- B. duplexing
- C. AB copying
- D. front and back copying

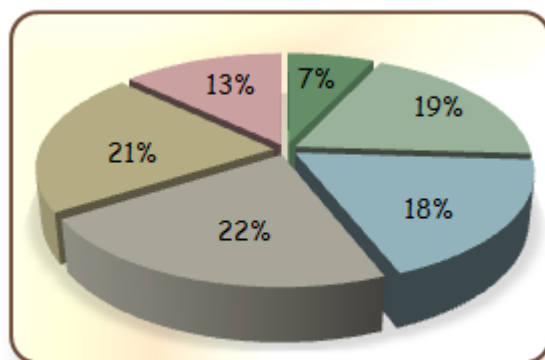
## Performance Assessment:

**Administration Time:** 3 hours and 35 minutes

**Number of Jobs:** 6

### Areas Covered:

7%	<b>Design and Copy Preparation</b>
19%	<b>Electronic Imaging</b>
18%	<b>Reproduction Photography</b>
22%	<b>Image Assembly/Proofing/Platemaking</b>
21%	<b>Duplicator/Press Operations</b>
13%	<b>Finishing</b>



**Sample Job:** Design and Copy Preparation

**Estimated Job Time:** 15 minutes

**Participant Activity:** The test participant will use design principles to produce a two-color vacation advertisement with a finished size of 7-inches by 9-inches. Three thumbnail sketches will be prepared and one rough will be developed based on the best thumbnail.

