SkillsUSA

National Leadership and Skills Conference
Screen Printing Technology
Performance Testing Plan
June 21-22, 2017
SkillsUSA 2017
Screen Printing Technology Performance Test Plan

Kentucky Exposition Center
Louisville, KY

June 21-22, 2017

General Information for
Technical Committee Members
Judges
State SkillsUSA Directors
Graphic Arts Instructors
And
Contestants
SkillsUSA 2017
Screen Printing Technology

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Screen Printing Technology
Organizational Structure

I. Performance Test Chair and Co-Chair Responsibilities
   A. Coordinates details of organization.
   B. Reviews floor plans for performance test.
   C. Coordinates acquisition of equipment and supplies.
   D. Identifies and appoints judges.
   E. Assigns local committee members a list of needed supplies to have on hand on the day of the performance test: staples, pencils, marking pens, paper, and other consumable items.
   F. Arrange for security of performance testing area the evening before the day of the competition.

II. Technical Committee Responsibilities
   A. Selects competencies to be tested.
   B. Develops rating sheets.
   C. Completes preliminary instructions (scenario) and information sheets.
   D. Determines number of judges needed.
   E. Obtains names and addresses of judges.
   F. Determines materials, supplies, tools, and equipment needs for the performance test and identifies probable sources.
   G. Prepares a complete set of instructions in the form of scenarios.
   H. Determines the layout for the performance test area.
   I. Sets a time schedule for contestants.

III. Education Committee Responsibilities
   A. Work with the technical committee to protect the validity of the performance test.
   B. Reviews performance test content for accuracy and relevancy.

IV. Judges Responsibilities
   Judges must attend an orientation session prior to the start of the performance test.
   Contestants should be allowed to become familiar with the competency testing station with regard to the instructions in the performance test scenario.
SkillsUSA 2017
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Judges Responsibilities

1. Judges must be completely familiar with the *SkillsUSA Championships Technical Standards*, particularly the General Regulations, Instructions to Technical Committee Chairs, and the specific rules to the contest they have been asked to judge.

2. Judges should receive copies of the contest project and judges’ rating sheet(s), along with complete instructions from the technical committee chair prior to the competition.

3. Members of the SkillsUSA Championships technical committee may not serve as judges unless approved by the SkillsUSA Championships director.

4. Judges must give careful attention to each rule, and each contestant or entry must be judged in exactly the same manner and under the same conditions as every other contestant or entry.

5. Judges will meet prior to the SkillsUSA Championships, at a time and place announced by the SkillsUSA Championships technical committee chair to confer on:
   a. Rules meanings and interpretations
   b. Room arrangements
   c. Materials and equipment
   d. Last-minute details
   e. Rating sheets

6. Judges will evaluate the performance of each contestant according to criteria listed for each contest.

7. Judges will **identify contestants by number only**. Judges will not use contestants’ names, schools or state unless otherwise specified in individual contest rules.

8. Judges may attend the contest orientation meeting held prior to the opening of the SkillsUSA Championships. However, **only members of the technical committee** may instruct the contestants and verify attendance.

9. Judges are selected because on their recognized expertise in the trade or skill that they are being asked to judge and are asked to follow the official SkillsUSA rules without inserting personal opinions. Such things as length of hair, length of dress and style of shoe, unless specifically covered in the contest regulations, are not to be considered by the judges except where safety is considered.

10. In no instance are judges or contest chairs authorized to change the contest rules. If an interpretation is required, the chair should contact the SkillsUSA Championships director.

11. Judges are to evaluate all items related to safety. Contestants not meeting safety requirements in clothing and/or devices may be disqualified from competition if, in the judges’ opinions, the safety of the contestants or those around them is endangered.

12. Judges should **rate contestants on the basis of entry-level job skills**. Judges should **rate each contestant independently and not compare rating sheets with those of other judges**.

13. Judges should rate contestants against a standard of performance rather than automatically awarding first-, second-, or third-place medals to the highest-ranking competitors. **It is not necessary to award a medal if the standard of performance does not justify such recognition**.

14. After the judging is completed, judges should **total their own rating sheets** and return them, along with any notes and other pertinent information, to the SkillsUSA Championships technical committee chair.

15. The judges and technical committee members will **keep all results confidential until the general announcement of winners is made at the Awards Ceremony**. Under no circumstances may judges discuss contest results or contestants’ performance with contestants, chapter advisors or any observer.

16. Judges should refer all contest inquiries or problems that arise to the SkillsUSA technical committee chair. In keeping with a tradition of respect for the individuality of our members and our role in work force development, SkillsUSA strives to ensure inclusive participation in all of our programs, partnerships and employment opportunities.

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SkillsUSA 2017
Screen Printing Technology
Contestant Information Sheet

A. Purpose
To rate a screen-printing contestant’s preparation for employment and to recognize outstanding contestants for excellence and professionalism in the field of graphic imaging.

B. Clothing Requirements
   Established by the SkillsUSA general contest requirements.
   An apron or smock is optional.
   Contestants should consider safety glasses with side shields, ear protection and latex gloves in some of the operational areas such as screen reclaiming.

C. Eligibility
   Open to all active SkillsUSA members enrolled in technical education programs that teach graphic communications skills.

D. Tools
   The technical committee will provide the tools needed at each competency testing station.
   Contestants may use rulers, rags, optical devices, markers and other items that they feel will enhance their performance.

E. The SkillsUSA Screen Printing Technology Scorecard lists items that will not be evaluated during the current competition.
   These items are as follows:
   1. Screen Blockout
   2. Screen Reclaiming

Therefore, the points for each of these evaluation items will be recorded on the Screen Printing Technology Scorecard for every Screen Printing Technology Contestant. The Assignment and Rating Sheets for these performance-testing areas are included in this Performance Test Plan. The sheets have been included in this plan because Graphics Communications Students and Instructors may wish to refer to these sheets at some future time when screen printing performance testing procedures are needed at a local, district, state or National Competition.

SkillsUSA 2017
Screen Printing Technology

Scope of the Test
I. Contestants will demonstrate their abilities to perform the duties and tasks that pertain to the following list of items that may be evaluated. The precise number of duties and tasks required for a competent performance of a screen-printing process will be determined by the Screen Printing Technology Technical Committee with the level of skill left to the professional judgment of the Screen Printing Technology Judges.
   A. Screen Preparation (Inspection & Tensioning)
   B. Screen Coating
   C. Screen Exposure & Washout
   D. Screen Blockout
   E. Image Registration
   F. Image Printing
   G. Screen Reclaiming
   H. Quality Control Problem
   I. Written Knowledge Test
   J. Oral Professional Assessment

II. This list of items that may be evaluated is taken from the Screen Printing Technology Scorecard. As listed on the Screen Printing Technology Scorecard each of the ten evaluation items listed above have an attending number of possible points. Performance testing station checklists may generate points in more than one of the ten evaluation areas. (Example: Image Registration and Image Printing will test some of the same screen-printing skills. The testing of these identical skills will contribute points to a composite score on the Screen Printing Technology Scorecard.)

A. Screen Preparation, Inspection & Tensioning
   Inspect screens entering production.
   Check screen tension with a tension meter and re-tension if needed. **NOTE:**

B. Screen Coating
   Select and prepare emulsion scoop
   Fill emulsion scoop coater
   Evaluate screen for acceptable tolerances
   Coat screen with emulsion
   Place coated screen in a screen dryer
C. Screen Exposure and Washout
   Select the red film positive from an art file
   Inspect the film positive for dirt and marks
   Obtain a screen coated with emulsion from screen dryer
   Inspect and protect screen from excess light
   Center red film positive on screen 6 inches from frame top
   Secure the film positive to the screen
   Place screen and film positive on an exposure unit
   Expose screen
   Remove film positive
   Washout the unexposed emulsion on a screen to create an image stencil
   Remove excess water
   Dry screen

D. Screen Blockout
   **Evaluation of this item at the state level is optional. It will be not be evaluated at the national level in 2017.**
   Use blockout fillers and tape to cover areas on the screen where plastisol could be printed on the image in an area that would produce a shirt that could not be sold to a customer.

E. Image Registration
   Place screen on the press
   **Coarse register** to image printed at this press station (Note do not remove the blockout tape from the registration marks)
   Check shirt boards for proper adhesion
   Select adhesive by type
   Apply adhesive to shirt boards for proper adhesion
   Inspect contact side of screens for excess ink
   Test screen off contact
   Print test image on a rag or other substrate to check for correct registration
   **Fine register** to image printed at this press station
   Print proof image on two shirts
   Place shirts in dryer

F. Image Printing
   Check shirt boards for proper adhesion
   Select adhesive by type
   Apply adhesive to shirt boards for proper adhesion
   Inspect contact side of screens for excess ink
   Inspect all screens for off contact
   Check ink supply on each screen
   Check registration of all screens
   Squeegee selection and inspection for hardness and damage
   Print image on shirts
   Place shirts in dryer

G. Screen Reclaiming
   **Evaluation of this item at the state level is optional. It will be not be evaluated at the national level in 2017.**
   Remove excess ink
   Remove block-out filler and tape
Apply emulsion remover
Blow out emulsion with high pressure hot water
Use scrub brush where needed
Use environmentally safe chemicals and procedures

H. Quality Control Problem
   Study technical specifications contained in the Tech Pack
   Study the quality assurance worksheet scenario and inspection steps
   Inspect a quality assurance sample of five garments

I. Written Test
   Answer a minimum of 25 multiple-choice screen-printing technology questions.
   Complete the test in the allotted thirty (30) minutes

J. Oral Professional Assessment
   Communicate in a job interview setting, which requires technical knowledge, career objective, professional judgment, and courtesy.

III. When a contestant has completed an assigned job the contestant is to be seated in the chair provided at that testing station to stop the time. After the judge and timekeeper have completed rating the contestant’s performance and procedure the contestant will be notified. The judge will gather the completed project and rating form and submit it to the scorekeeper for tabulation and posting on a Screen Printing Technology Scorecard. Each contestant will work independently without assistance from judges, instructors, fellow contestants, or observers. Such assistance may result in the contestant being disqualified.

IV. Contestants should perform minor testing station maintenance: such as clean up, tool and materials placement. Testing station maintenance is an item that will be evaluated by testing station judges.
Screen Printing Technology
Screen Preparation

Screen Inspection and Tensioning Assignment

Objective:
Inspect and test three retentionable screens with stencils that are reentering production from storage. This inspection is made to determine if company production standards are being met. Special attention is given to screen four’s tension in preparation for coating. Tension tolerances are specified in a performance test scenario written at top of the screen preparation (tensioning) station checklist.

Note: Screen mesh tension must not vary more than plus or minus 5 Newtons at screen’s center.

Caution: Do not continue to tighten screws that are crooked or jammed. A jammed screw on any frame corner will prevent completion of the tensioning process and result in zero (0) points for this portion of your
Screen Printing Technology Performance Test.

Screen inspection and tension testing instructions:
1. Obtain Screen Preparation (Inspection and Tension) Checklist from the station timekeeper.
2. Read the scenario written on the checklist.
3. Move to inspection and tension testing station.
4. Inspect and test screen # 1. Place a check mark to indicate either accept or reject.
5. Record the screen tension number as either accept or reject.
6. Move to screen # 2.
7. Inspect and test screen # 2. Place a check mark to indicate either accept or reject.
8. Record the screen tension number as either accept or reject.
9. Move to screen # 3.
10. Inspect and test screen # 3. Place a check mark to indicate either accept or reject.
11. Record the screen tension number as either accept or reject.
12. Submit your inspection report to the judge.
   a. NOTE: Screen Tensioning will be not be part of the 2016 Screen Printing Technology Performance Test. All Contestants will automatically receive 20 points on the Screen Printing Technology Scorecard. This action is taken to afford more time for the testing of additional contestants.
14. Tension and test screen #4
15. Place the tensioning tools back in their proper place on the workstation bench.
16. Return to the Inspection and Tension Station starting position.

Judging:
A screen printer will use the screen preparation (inspection and tension) checklist, reproduced on the following page, to judge the contestant’s performance.

Time:
A timekeeper will control the time each contestant is allotted for the completion of the screen inspection and tension testing procedure. A maximum of fifteen (15) minutes is allocated to the procedure.
Points:
Contestants earn four (4) points for each inspection check mark that is recorded on the correct blank as an accepted or rejected inspection for items one (1) through four (4). Inspection item five (5), for each of the three (3) screens, requires the number of Newtons read from a tension meter be recorded as either accepted or rejected. A maximum of sixty (60) points may be given to contestants for the screen inspections. A maximum of forty (40) points may be given to contestants for the screen tensioning performance.

Screen Preparation (Inspect and Tension) Checklist

Contestant Identification: ___________________________ Time Used: _____________.
Scenario: Inspect and test the tension on three (3) screens. The standard tension is 25 Newtons with a tolerance
of + or - 5. Use the items listed on this checklist to inspect and determine if screens one (1), two (2) and three (3) meet production standards. **Do not retention screen that have stencils.**

Then tension the fabric (mesh) on screen number four (4) to 25 Newtons at screen’s center.

**Instructions for Judge’s Scoring**

**Process Evaluation Criteria:** Evaluation of the process involves how accurately the contestant performed with each screen. Depending on the placement of check marks and tension measurements for each of three inspection screens, award points of zero or four for each correct check mark and zero to four for the tension readings. Judges shall deduct one (1) point for each one (1) Newton of difference from the tension reading listed on the judging KEY. Tensioning screen number four (4) will require the judge to award 0 to 4 points for each tensioning operation listed while the contestant is working. Four (4) points may be awarded to contestants on each of the 25 lines provided in the Judges Scoring Box.

**Contestants Rating for Performance of the Inspection Process:**

<table>
<thead>
<tr>
<th>Screen 1 Inspection and Tensioning Reports</th>
<th>Accept</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screen frame is free of damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Screen is free of cuts, splits or punctures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Stencil is free of damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Stencil is not clogged in the image area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Screen tension readings. (Record Newtons)</td>
<td>Accept</td>
<td>Reject</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screen 2 Inspection and Tensioning Reports</th>
<th>Accept</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screen frame is free of damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Screen is free of cuts, splits or punctures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Stencil is free of damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Stencil is not clogged in the image area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Screen tension readings. (Record Newtons)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screen 3 Inspection and Tensioning Reports</th>
<th>Accept</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screen frame is free of damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Screen is free of cuts, splits or punctures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Stencil is free of damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Stencil is not clogged in the image area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Screen tension readings. (Record Newtons)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Screen 4 Tensioning</th>
<th>Accept</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inserted tension jacks at screen frame bottom.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Loosened bottom frame screws.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Softened bottom screen corners.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Tightened frame bottom screws.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Repeated steps 2, 3, 4, and 5 at top and sides.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Checked screen frame corners for square.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Removed tension meter from protective case.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Replaced tension meter in protective case.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Judges Scoring Box**

<table>
<thead>
<tr>
<th>60 Points Possible</th>
<th></th>
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</thead>
<tbody>
<tr>
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</table>

Sub Total

<table>
<thead>
<tr>
<th>40 Points Possible</th>
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<tr>
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</table>

Inspection Total

Sub Total

<table>
<thead>
<tr>
<th>20 Tensioning Total</th>
<th></th>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

Station Total

Judge’s Signature ______________________________ Date: ____________

SkillsUSA 2017
Screen Printing Technology

Screen Coating

Objective:
Coat and dry a screen with photosensitive emulsion. The freshly coated screen will be placed in the screen coating station screen dryer.

Screen coating station procedure instructions:

1. Select a screen with correct mesh count.
2. Select and inspect an emulsion scoop coater.
3. Pour enough emulsion into the scoop coater to coat one screen.
5. Place the wet screen in a screen dryer, squeegee side up.
6. Check the dryer temperature.
7. Clean the scoop coater, tools, and screen coating station.

Judging:
A screen printer will use the screen coating station checklist, reproduced on the following page, to judge the contestant’s performance, procedure and product.

Time:
A timekeeper will record the time each contestant needed to complete the screen coating procedure and place the newly coated screen in the screen coating station screen dryer.
A maximum of fifteen (15) minutes is allocated to coat and store the newly coated screen.

Points:
A maximum of fifty (50) points may be given to the contestant for a standard screen coating performance.

Screen Coating Checklist
Contestant Identification: ______________________ Time Started: __________

Directions:
This is a performance evaluation sheet to rate a contestant on a scale from 0 to 2 and 0 to 5 for various items in relation to an occupational competency (skill). This instrument can be used for process, product, safety, and time standard evaluation.

Process Evaluation Criteria:
Depending on the degree of proficiency demonstrated for each criterion point listed below award zero, one or two points.

Contestants Rating for Performance Process:

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Zero</th>
<th>One</th>
<th>Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inspected screen fabric to insure its usable condition.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Positioned emulsion scoop coater to prevent spills.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Opened emulsion container lid.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Poured adequate amount of emulsion into scoop coater.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Held screen with one hand at correct angle.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Coated contact side of the screen in one smooth pass.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Coated squeegee side of screen smoothly.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Removed excess emulsion left from scoop overflow.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Put screen in dryer. Contact side up or down?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Returned unused emulsion to the container.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Placed lid on emulsion container.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Removed emulsion from scoop coater and tools.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Cleaned work area of spills and drips. (If needed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Coated screen in proper sequence.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Used careful procedures, in allotted time.</td>
<td></td>
<td></td>
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</tbody>
</table>

Product Evaluation: Rate the coated screen in accordance with the following point scale:
0 – Reject, 1 – Very Poor, 2 – fair, 3 – good, 4 – very good, 5 – excellent.

Contestants Product:

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Zero</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>Five</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screen coating is free of pin holes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Coating is free of drips and runs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Coating is uniform in thickness.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Outside of screen frame is free of emulsion.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Points Earned ______________

Judge’s Signature ___________________________________________ Date: __________

SkillsUSA 2017
Screen Printing Technology
Screen Exposure and Washout Assignment

Objective: Create an image on a screen in accordance with the instructions given at the screen exposure and washout station.
Screen exposure and washout station instructions:
1. Refer to the art file and select the film positive needed to expose the screen for printing the designs red elements.
2. Check film positive’s unmarked properties, clean the film positive if needed
3. **Position the film positive on an unexposed emulsion coated screen with the registration marks (crosshairs) at the top and bottom center of the film positive on the screen’s centerline. The registration mark (+) at the top of the film positive shall be positioned 6 inches from the outside edge of the frame at the top of the screen.**
4. Secure the film positive to the screen
5. Place the screen and film positive on the exposure unit
6. Expose the screen
7. Remove film positive and return it to the art file
8. Place the exposed screen in a washout booth
9. Wet both sides of the exposed screen with warm water
10. Allow the unexposed emulsion to soak for a few seconds
11. Spray the unexposed area of the image with a low-pressure sprayer.
12. Washout all of the unexposed emulsion from the stencil
13. Remove the excess water from the screen
14. Check for emulsion binder (scum) left on the screen’s washout areas
15. Place screen in a screen dryer rack

Judging:
A screen printer will use the screen exposure and washout station checklist to judge the contestant’s performance, procedure and product.

Time:
A timekeeper will record the time each contestant needed to complete the screen exposure and washout procedure. A maximum of fifteen (15) minutes is allocated for the screen exposure and washout procedure.

Points:
A maximum of one hundred (100) points may be given to the contestant for a screen-printing stencil procedure that meets industry standards.

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**Screen Exposure and Washout Station Checklist**

**Contestant Number:** __________________________ **Time:** ______________

**Directions:**
This is a performance evaluation sheet to rate a contestant on a scale of 0 to 4 and 0 to 5 for various items in relation to an occupational competency (skill). This instrument can be used for process, product, safety and time standard evaluations.
Process Evaluation:
Evaluation of this process involves exposing a screen-printing screen with an ultra-violet exposure unit and washout of unexposed emulsion to create a stencil.

80 Points Possible

Contestants Rating for Performance of the Process: Zero One Two Three Four

Zero One Two Three Four
1. Selected needed film positive from art file. ____________________________
2. Inspected film positive for dirt or marks. ____________________________
3. Cleaned film positive and exposure unit glass, if needed. ________
4. Took an unexposed screen from screen dryer. ______________________
5. Placed and aligned the film positive on the screen. ________________
6. Taped the film positive to the screen. _____________________________
7. Checked exposure unit for correct exposure time. _________________
8. Placed screen and film positive on the exposure unit. _______________
9. Placed bleeder cord on screen and closed exposure unit lid. __________
10. Checked exposure unit timer for correct preset time. ______________
11. Turned on exposure unit and vacuum pump power. ________________
12. Checked exposure unit for proper blanket vacuum. _________________
13. Exposed the screen. ________________________________
14. Turned off exposure unit to allow vacuum release. ________________
15. Opened the exposure unit lid. ________________________________
16. Transferred screen to washout booth and wet both sides. __________
17. Washed out the unexposed emulsion to create a stencil. __________
18. Blotted excess water from stencil and inspected for scum. __________
19. Placed screen in screen dryer rack. ____________________________
20. Cleaned up the testing station. ________________________________

Product Evaluation: Evaluation of the dried screen in accordance with the following points scale; 0 – reject, 1 -- very poor, 2 -- fair, 3 -- good, 4 -- very good, 5 – excellent

Contestants Product Points (20 Possible). Zero One Two Three Four Five
1. Image was centered and not crooked. __________________________
2. Image was 6 in. (+/- ¼ in.) down from top of frame. ____________
3. Screen was properly exposed. _________________________________
4. Screen was properly washed out and dried. ______________________

Total Points Earned

Judge’s Signature __________________________ Date: __________________
The Screen Block Out Station will be not be part of the 2016 Screen Printing Technology Performance Test. All Contestants will automatically receive 50 points on the Screen Printing Technology Scorecard. This action is taken to afford more time for the testing of additional contestants.

Objective:
Block out portions of a test screen where direct emulsion did not coat the screen fabric, or where the cured emulsion has a flaw such as a pin hole, scratch, cut or other defect that would allow plastisol to be applied to incorrect areas on a substrate during the printing process.

Screen Block Out station instructions:
1. Remove the test screen from the screen dryer.
2. Compare the number on the test screen to Contestant ID number.
3. Inspect block out station table for cleanliness and objects that could damage the test screen.
4. Place the test screen on the block out station table.
5. Use block out tape to tape off the sides of the screen where emulsion is missing.
6. Use block out tape to tape off the top and bottom of the screen where emulsion is missing.
7. Create corner dams to prevent ink leaks.
8. Inspect test screen stencil for flaws, scum and orientation.
9. Use block out tape to tape off flaws such as pinholes.
10. Present test screen to the block out Judge for final check and evaluation.

Judging:
A screen printer will use the screen block out station checklist, reproduced on the following page, to judge the contestant’s performance, procedure and product.

Time:
A timekeeper will record the time each contestant needed to complete the screen block out procedure. A maximum of fifteen (15) minutes is allocated to the screen block out procedure.

Points:
A maximum of fifty (50) points may be given to the contestant for a screen block out that meets industry standards.

Screen Blockout Station Checklist
Contestant Number: ___________________________ Time: ________________

Directions:
This is a performance evaluation sheet to rate a contestant on a scale of 0 to 4 and 0 to 5 for various items in relation to an occupational competency (skill). This instrument can be used for process, product, safety and time standard evaluations.

Process Evaluation:
Evaluation of the process involved with blocking out portions of a test screen where direct emulsion does not coat the screen fabric.

Points Possible 40

40 Points Possible

Contestants Rating for Performance of the Process
1. Removed the test screen from the screen dryer
2. Compared test screen number to Contestant ID number.
3. Inspected station table for cleanliness and foreign objects.
4. Placed the test screen on the block-out station table.
5. Used block-out tape to tape off the sides of the screen.
6. Used block-out tape to tape off top and bottom of screen.
7. Created corner dams to prevent ink leaks.
8. Inspected test screen stencil for flaws, scum and orientation.
9. Used block-out tape to tape off flaws such as pinholes.
10. Presented screen to judge for final check and evaluation.

Product Evaluation:
Evaluation of the dried screen in accordance with the following points scale;
0 – reject, 1 -- very poor, 2 -- fair, 3 -- good, 4 -- very good, 5 – excellent

Contestants Product:
1. Tape around frame is smooth and will not leak.
2. Flaws such as pinholes taped over and will not leak.

Points Possible 10

<table>
<thead>
<tr>
<th></th>
<th>Zero</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
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</tbody>
</table>

Total Points Earned ____________

Judge’s Signature ___________________________ Date: ________________
SkillsUSA 2017
Screen Printing Technology
Image Registration
Objective:
Place a screen on a screen press and register the stencil image to screen stencils that have been registered and used to print an image on a substrate.

Image registration station instructions:
1. Remove the test screen from the reclaim area.
2. Do not remove block-out tape from the registration marks.
3. Print an image using the screen with darkest ink on a substrate.
4. Spot cure the dark image that is to be the registration reference.
5. Register the screen to an image that is being printed on the press.
6. Ink the screen.
7. Test the newly registered image by printing the multicolor image on the substrate provided.
8. Remove the test image from the press and place it on the conveyer dryer belt.
9. Print two (2) T-shirts.
10. Remove the T-shirts from the press and place them on the conveyer dryer belt.
11. Remove the test screen.

Judging:
A screen printer will use the image registration station checklist, reproduced on the following page, to judge the contestant’s performance, procedure and product.

Time:
A timekeeper will record the time each contestant needed to complete the image registration procedure. A maximum of fifteen (15) minutes is allocated to the image registration procedure.

Points:
A maximum of one hundred (100) points may be given to the contestant for an image registration that meets industry standards.
Image Registration Station Checklist

Contestant Number: __________________________ Time: ______________

Directions:
This is a performance evaluation sheet to rate a contestant on a scale of 0 to 4 and 0 to 5 for various items in relation to an occupational competency (skill). This instrument can be used for process, product, safety and time standard evaluations.

Process Evaluation:
Evaluation of process involved with registering a screen-printing screen on a rotary press.

80 Points Possible

Contestants Rating for Performance of the Process:
1. Took screen from reclaim area and attached it to the press. __________________________
2. Checked the rotary press head for zeroed out position. __________________________
3. Cleaned ink from mesh to allow view of printed images. __________________________
4. Registered to an image being printed at this station. __________________________
5. Checked screen for off contact and level. __________________________
6. Checked all screens and screen frames for unwanted ink. __________________________
7. Applied ink to screen being registered. __________________________
8. Selected appropriate squeegee. __________________________
9. Applied proper adhesive and amount to the platen. __________________________
10. Spot cure dark image that is the registration reference. __________________________
11. Flooded the newly registered screen with ink. __________________________
12. Printed registered image to a test image on substrate. __________________________
13. Checked test image for ink smears, pin holes, etc. __________________________
14. Cured the image in the conveyor dryer. __________________________
15. Printed two T-shirts with the multicolor image. __________________________
16. Dried the T-shirts in a conveyor dryer. __________________________
17. Removed test screen. __________________________
18. Cleaned work area of spills and drips. (If needed) __________________________
19. Submitted test image and T-shirts to the judge. __________________________
20. Completed registration procedure in allotted time. __________________________

Product Evaluation:
Evaluation of the registered image in accordance with the following points scale:
0 – reject, 1 -- very poor, 2 -- fair, 3 -- good, 4 -- very good, 5 – excellent

Contestants Product Points (20 Possible):
1. Test image was in registration. __________________________
2. All parts of the image printed. __________________________
3. Image was not blurred. __________________________
4. Ink smears do not appear in the image. __________________________

Total Points Earned ________________

Judge’s Signature ___________________________________________ Date: ________________
SkillsUSA 2017
Screen Printing Technology
Image Printing

Image Printing Assignment

Objective:
Print and dry at least seven (7) shirts within seven (7) minutes that are of salable quality.

Image printing station instructions:
1. Check the ink level in each screen.
2. Check the press shirt boards for proper adhesion.
3. Operate the printing press to print a multicolor image on shirts.
4. Spot cure after each image color where printing wet on wet is not desirable.
5. Place the shirts on the belt of a conveyor dryer.
6. Stack the printed shirts and give them to the judge.
7. Remove ink smears from press, screens, squeegees, tools and image printing station area.

Judging:
A screen printer will use the image printing station checklist, reproduced on the following page, to judge the contestant’s performance, procedure and product. Contestants may earn extra points by printing more than five (5) shirts within seven (7) minutes.

Time:
A timekeeper will record the time each contestant needed to complete the image printing procedure. A maximum of fifteen (15) minutes is allocated to the total image printing station procedure. Time stops when the contestant is seated.

Points:
A maximum of two hundred (200) points may be given to the contestant for a high quality image printing performance.
Image Printing Station Checklist

Contestant Number: ___________________________ Time: __________

Directions: This is a performance evaluation sheet to rate a contestant on a scale of 0 to 8 and 0 to 20 for various items in relation to an occupational competency (skill). This instrument can be used for process, product, safety and time standard evaluations.

Process Evaluation: Evaluation of the process involves assessing how well a contestant can print shirts as well as how fast the shirts were printed on a rotary press.

Possible Points 120

Contestants Rating for Performance of the Process:

Zero Two Four Six Eight

1. Checked the ink level in each screen. ___________ ___________ ___________ ___________ ___________
2. Checked shirt board for proper fabric adhesion. ___________ ___________ ___________ ___________ ___________
3. Chose and applied proper adhesive type and amount. ___________ ___________ ___________ ___________ ___________
4. Inspected all screens for off contact and cleanliness. ___________ ___________ ___________ ___________ ___________
5. Spot cured when printing wet on wet is not desirable. ___________ ___________ ___________ ___________ ___________
6. Printed four salable T-shirts, 1 thru 4. ___________ ___________ ___________ ___________ ___________
7. Skillfully placed each shirt in dryer. ___________ ___________ ___________ ___________ ___________
8. Printed salable T-shirts, 5 thru 8. ___________ ___________ ___________ ___________ ___________
9. Skillfully placed each shirt in dryer. ___________ ___________ ___________ ___________ ___________
10. Printed salable T-shirts, 9 or more. ___________ ___________ ___________ ___________ ___________
11. Skillfully placed each of the shirts in dryer. ___________ ___________ ___________ ___________ ___________
12. Stopped printing when seven (7) minutes had elapsed. ___________ ___________ ___________ ___________ ___________
13. Collected the printed shirts from the dryer basket. ___________ ___________ ___________ ___________ ___________
14. Stacked printed shirts with the image up for judging. ___________ ___________ ___________ ___________ ___________
15. Completed printing procedure in allotted time safely. ___________ ___________ ___________ ___________ ___________

Product Evaluation: Using the printing technical specifications found in the customer’s technical packet (Tech.-Pack) evaluate the printed garments in accordance with the following zero to twenty point scale.

Deduct five points for each error found on the garments!

0 – reject, 5 -- fair, 10 -- good, 15 -- very good, 20 – excellent

Contestants Product Points (80 Possible)

Zero Five Ten Fifteen Twenty

1. Images were printed at correct height. ___________ ___________ ___________ ___________ ___________
2. Images were printed on center. ___________ ___________ ___________ ___________ ___________
3. Images were not crooked. ___________ ___________ ___________ ___________ ___________
4. Ink evenly applied without smudges on shirts. ___________ ___________ ___________ ___________ ___________

Total Points Earned ___________

Judge’s Signature ___________________________ Date: __________
SkillsUSA 2017
Screen Printing Technology
Screen Reclaiming

Screen Reclaiming Assignment
The Screen Reclaiming Station will be not be part of the 2016 Screen Printing Technology Performance Test. All Contestants will automatically receive 100 points on the Screen Printing Technology Scorecard. This action is taken to afford more time for the testing of additional contestants.

Objective:
Reclaim a screen that has been used to print an image on a shirt in accordance with the instructions given at the screen reclaiming station.

Screen reclaiming station instructions:
1. Remove a used screen from a storage rack.
2. Place screen in a cleanup rack that compares to a press with side clamps
3. Remove ink
4. Remove block-out tape (if present)
5. Remove emulsion
6. Secure high-pressure sprayer
7. Place screen in a storage rack
8. Clean up the workstation

Judging:
A screen printer will use the screen reclaiming station checklist, reproduced on the following page, to judge the contestant’s performance, procedure and product.

Time:
A timekeeper will record the time each contestant needed to complete the screen reclaiming procedure. A maximum of fifteen (15) minutes is allocated to the screen reclaiming procedure. Time stops when the contestant is seated.

Points:
A maximum of one hundred (100) points may be given to the contestant for a screen reclaiming procedure that meets industry standards.
Screen Reclaiming Station Checklist
This station will not be in operation during the 2017 Competition

Contestant Number: ______________________ Time: ________________

Directions: This is a performance evaluation sheet to rate a contestant on a scale of 0 to 4 and 0 to 5 for various items in relation to an occupational competency (skill). This instrument can be used for process, product, safety and time use evaluations.

Process Evaluation: Evaluation of the process involved with reclaiming a screen

Contestants Rating for Performance of the Process:

1. Donned apron and safety glasses. ______________________
2. Used ear protection and gloves. ______________________
3. Removed screen from storage rack. ______________________
4. Placed screen on clean up rack. ______________________
5. Removed excess ink. ______________________
6. Removed block out tape. (If Present) ______________________
7. Used towels and solvent to remove remaining ink. ______________________
8. Disposed of the dirty towel. ______________________
9. Placed screen in the washout booth. ______________________
10. Turned the washout booth backlight off. ______________________
11. Applied emulsion remover. ______________________
12. Allowed time for the stencil emulsion to soften. ______________________
13. Used high-pressure washer to remove emulsion. ______________________
14. Used brush to help loosen emulsion hard spots. ______________________
15. Blotted or vacuumed excess water from the screen. ______________________
16. Placed the reclaimed screen in the screen dryer. ______________________
17. Cleaned the washout booth. ______________________
18. Stowed the high-pressure washer hose and nozzle. ______________________
19. Used safe procedures. ______________________
20. Completed reclaiming procedure in allotted time. ______________________

Points Possible 80

<table>
<thead>
<tr>
<th>Zero</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

Product Evaluation: Evaluation of the reclaimed screen in accordance with the following points scale; 0 – reject, 1 -- very poor, 2 -- fair, 3 -- good, 4 -- very good, 5 -- excellent

Points Possible 20

<table>
<thead>
<tr>
<th>Zero</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>Five</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Contestants Product:

1. Screen is free of block out tape. ______________________
2. Screen is free of ink residue. ______________________
3. Screen is free of emulsion residue. ______________________
4. Frame is clean and dry. ______________________

Total Points Earned ______________________

Judge’s Signature ______________________ Date: ______________________
Objective:
Judge quality levels of five (5) garments that have been rejected by a quality assurance auditor before the auditor negotiates a new price for your company’s customer.

Quality control station instructions:
1. Study technical specifications contained in the Tech Pack.
2. Obtain the Q. C. problem worksheet from the Q. C. station timekeeper
3. Study the quality assurance worksheet scenario and inspection steps.
4. Move to garment quality assessment station inspection pedestal.
5. Select garment number one (1) and spread it out on the inspection pedestal.
6. Inspect both sides of the garment number one (1).
7. Rate the degree of defect garment one (1) on the quality control inspection worksheet.
8. Place garment one (1) in box marked for either none, minor or major rejects.
9. Inspect the remaining four (4) garments according to steps 5, 6, 7 and 8.
10. Return to the judge or timekeeper and submit your completed report that is recorded on the quality control problem worksheet.

Judging:
A screen printer will use the quality control problem worksheet, reproduced on the following two pages, to judge and score the contestant’s performance.

Time:
A timekeeper will record the time each contestant needed to complete the quality control problem procedure. A maximum of fifteen (15) minutes is allocated to the quality control problem procedure. Time stops when the contestant is seated.

Points:
A maximum of one hundred (100) points may be given to the contestant for the quality assurance audit that meets industry standards.
Quality Control Problem Worksheet

Scenario:
As a quality control inspector for New Era Screen Printing Company you have been given the task of assessing the validity of a recent quality assurance audit performed by one of your company’s customers. The quality assurance auditor rejected five (5) garments. You have been instructed to use the criterion lists printed on the back of this worksheet to determine if each rejected garment was accurately evaluated and record the degree of each defect. The quality assurance audit criterion lists printed on the back of this worksheet has a rating scale for each of the ten possible defects that might be observed on each of the five sample garments that are being inspected for the second time. Rate each of the defect criterion factors listed by placing a check mark in the blank that indicates you found either no defect (NONE), minor defect (MINOR), or a major defect (MAJOR). Your evaluation of each of the ten possible defects will be supported in part by the image specifications included in the technical packet (Tech-Pack) that lists quality standards set by your company’s customer. As you evaluate each of the five (5) garments against the ten (10) possible defects it will be your responsibility to determine if the garments should have been rejected on the basis of a garment being considered not saleable.

Minor defects may be acceptable if the garment is considered as saleable. A minor defect example could be a small pinhole ink deposit.

Major defects will render a garment as not saleable. A major defect example would be a large smear of ink, or image printed out of dimension tolerance.

Judge’s Evaluation Criteria:
Depending on where the contestant placed a check mark to indicate the degree of quality defect for each criterion factor listed below award one or zero points. Scoring will be accomplished by comparing the contestants rating to the judge’s rating key.
<table>
<thead>
<tr>
<th>Quality Control Inspector Report Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garment 1-Type of Inspection Defect or Defects Found</td>
</tr>
<tr>
<td>1. Image printed on correct vertical dimension.</td>
</tr>
<tr>
<td>2. Image printed on center.</td>
</tr>
<tr>
<td>3. Image crooked.</td>
</tr>
<tr>
<td>4. Ink smudges on sample garment.</td>
</tr>
<tr>
<td>5. Color density varies across the image.</td>
</tr>
<tr>
<td>6. Ink printed in non-image area due to pinhole.</td>
</tr>
<tr>
<td>7. Last color covers previous colors.</td>
</tr>
<tr>
<td>8. Missed register between colors.</td>
</tr>
<tr>
<td>10. Colors match the customer’s standard.</td>
</tr>
<tr>
<td>Garment 2-Type of Inspection Defect or Defects Found</td>
</tr>
<tr>
<td>1. Image printed on correct vertical dimension.</td>
</tr>
<tr>
<td>2. Image printed on center.</td>
</tr>
<tr>
<td>3. Image crooked.</td>
</tr>
<tr>
<td>4. Ink smudges on sample garment.</td>
</tr>
<tr>
<td>5. Color density varies across the image.</td>
</tr>
<tr>
<td>6. Ink printed in non-image area due to pinhole.</td>
</tr>
<tr>
<td>7. Last color covers previous colors.</td>
</tr>
<tr>
<td>8. Missed register between colors.</td>
</tr>
<tr>
<td>10. Colors match the customer’s standard.</td>
</tr>
<tr>
<td>Garment 3-Type of Inspection Defect or Defects Found</td>
</tr>
<tr>
<td>1. Image printed on correct vertical dimension.</td>
</tr>
<tr>
<td>2. Image printed on center.</td>
</tr>
<tr>
<td>3. Image crooked.</td>
</tr>
<tr>
<td>4. Ink smudges on sample garment.</td>
</tr>
<tr>
<td>5. Color density varies across the image.</td>
</tr>
<tr>
<td>6. Ink printed in non-image area due to pinhole.</td>
</tr>
<tr>
<td>7. Last color covers previous colors.</td>
</tr>
<tr>
<td>8. Missed register between colors.</td>
</tr>
<tr>
<td>10. Colors match the customer’s standard.</td>
</tr>
<tr>
<td>Garment 4-Type of Inspection Defect or Defects Found</td>
</tr>
<tr>
<td>1. Image printed on correct vertical dimension.</td>
</tr>
<tr>
<td>2. Image printed on center.</td>
</tr>
<tr>
<td>3. Image crooked.</td>
</tr>
<tr>
<td>4. Ink smudges on sample garment.</td>
</tr>
<tr>
<td>5. Color density varies across the image.</td>
</tr>
<tr>
<td>6. Ink printed in non-image area due to pinhole.</td>
</tr>
<tr>
<td>7. Last color covers previous colors.</td>
</tr>
<tr>
<td>8. Missed register between colors.</td>
</tr>
<tr>
<td>10. Colors match the customer’s standard.</td>
</tr>
<tr>
<td>Garment 5-Type of Inspection Defect or Defects Found</td>
</tr>
<tr>
<td>1. Image printed on correct vertical dimension.</td>
</tr>
<tr>
<td>2. Image printed on center.</td>
</tr>
<tr>
<td>3. Image crooked.</td>
</tr>
<tr>
<td>4. Ink smudges on sample garment.</td>
</tr>
<tr>
<td>5. Color density varies across the image.</td>
</tr>
<tr>
<td>6. Ink printed in non-image area due to pinhole.</td>
</tr>
<tr>
<td>7. Last color covers previous colors.</td>
</tr>
<tr>
<td>8. Missed register between colors.</td>
</tr>
<tr>
<td>10. Colors match the customer’s standard.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contestant ID</th>
<th>Shirt 1 # Correct</th>
<th>Shirt 1 # Correct</th>
<th>Shirt 1 # Correct</th>
<th>Shirt 1 # Correct</th>
<th>Total # Correct</th>
<th>Multiply x2</th>
<th>Total QC Score</th>
</tr>
</thead>
</table>

Judge’s Signature ___________________________ Date: _________
SkillsUSA 2017
Screen Printing Technology
Written Test

Objective:
Correctly answer twenty-five (25) multiple choice test questions. (Questions will relate to graphic imaging and screen-printing processes)

Technical knowledge test station instructions:
1. Read instructions on the test book
2. Use number 2 lead pencil to mark the correct response
3. Give the testing administrator notice when the test has been completed
4. Remain seated until dismissed by the test administrator

Judging:
A technical knowledge test administrator will administer and score the technical knowledge test. Scoring will be accomplished by comparing a contestant’s responses to an answer key prepared by the screen-printing technical committee.

Time:
The technical knowledge test administrator will record the time each contestant uses to complete the technical knowledge test. A maximum of thirty (30) minutes is allocated to the technical knowledge testing procedure.

Points:
A maximum of one hundred (100) points may be given to the contestant who scores 100 percent on the technical knowledge written test.
Directions:

1. You will have 15 minutes to complete this 25-question multiple-choice test.
2. Write your contestant number on the Scantron Answer Sheet.
3. Use a No. 2 lead pencil to mark your responses to the questions on the Scantron Answer Sheet.
4. Do not mark on this test booklet.
5. When you have completed answering the 25 test questions, place both the answer sheet and test booklet face down on the table and wait for instructions from the testing monitor.
SkillsUSA 2017
Screen Printing Technology
Oral Professional Assessment

Oral Professional Assessment Assignment

Objective:
Participate in an oral professional assessment in a role-playing job interview setting related to a screen-printing career choice.

Oral professional assessment station instructions:
  1. Introduce yourself
  2. Take the seat indicated by the interviewer
  3. Answer questions
  4. Ask questions that you deem appropriate

Judging:
A human resources interviewer with basic knowledge of the screen printing industry will use the oral professional assessment station checklist, reproduced on the following page, to judge the contestant’s screen printing knowledge and preparation needed for employment in a screen printing occupation.

Time:
The human resources interviewer will record the time each contestant participated in a job interview. A maximum of fifteen (15) minutes is allocated to the oral professional assessment.

Points:
A maximum of one hundred (100) points may be given to the contestant for an oral professional assessment that meets Equal Employment Opportunity (EEO) standards.
Oral Professional Assessment Station Checklist

Contestant Number: _____________________ Time: _____________________

Directions:
This oral professional assessment checklist is designed to rate a contestant’s responses to questions on a scale of 0 to 20. Five question areas or problems should be posed that are related to the contestant’s occupational goals in the field of graphic imaging. This instrument should be used to record indications of person’s readiness for employment as a screen printer.

Process Evaluation:
Evaluation of the process involves interviewing a person who has applied for a job with a company that produces products requiring screen-printing processes. Questions will be related to a performance test that might be given to the applicant by a company’s production personnel.

Questions to be developed by the screen-printing technical committee prior to the day of the state level screen-printing performance test.

Questions related to the following areas:
1. Ability to handle assignments
2. Ability to answer questions asked in technical terms
3. Situation handled in a professional manner
4. Demonstration of critical thinking throughout the job interview scenario
5. Realistic self-concept

The following page is a copy of the Oral Professional Assessment Station Checklist related to the five areas listed above with the attending rating scale for each question area.

Note: The specific questions have been removed and will be revised annually by technical committee members.
Oral Professional Assessment Station Checklist

Contestant Number: _______ Start Time: ______ End Time: ______

1. Ability to handle work assignments. Question Area Score: 0 to 20 Points ______

2. Answered questions using technical terms. Question Area Score: 0 to 20 Points ______

3. Situation handled in a professional manner. Question Area Score: 0 to 20 Points ______

4. Used critical thinking during the interview. Question Area Score: 0 to 20 Points ______

5. Demonstrated a realistic self-concept. Question Area Score: 0 to 20 Points ______

Total Points Out of Possible 100 ______

Judge’s Signature ___________________________ Date: ___________
<table>
<thead>
<tr>
<th>Time</th>
<th>Minutes</th>
<th>Oral Interview</th>
<th>Q. C. Problem</th>
<th>Screen Coating</th>
<th>Post Secondary Screen Coating</th>
<th>Post Secondary Image Registering</th>
</tr>
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