



Skill India

कौशल भारत - कुशल भारत



India**skills**



N · S · D · C

National
Skill Development
Corporation

Transforming the skill landscape



Gem & Jewellery Skill Council of India

Sample Test Project

Skill 27–Jewellery

Category: Creative Arts and Fashion

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Section - A

A. Preface

Skill Explained:

The Objective of the test project is that the competitor should complete each of the four technical modules with six criteria.

-Similarity to Drawing.

-Sawing.

-Soldering.

-Surface finish.

-Dimensions

-On time finishing

Eligibility Criteria (for IndiaSkills 2018 and WorldSkills 2019):

Competitors born on or after 01 Jan 1997 are eligible to attend the Competition.

Total Duration: 16 hrs (spread over 3 days)

This Test Project proposal consists of the following documentation/files:

1. Test project PDF file (1:1) Drawing
2. Word File (test project details)
3. JPEG image (.jpg) Test project

Section - B

B. Test Project

Module-1

Module-2

Module-3

| | |
|--------------------|------------|
| | |
| SME: 27 | National |
| Scale: 1:1 | Ratio: 1:1 |
| Drawn / Design by: | Unit: MM |
| Date: | Paper: A4 |
| Description: | |

Section –C

C. Marking Scheme

The Assessment is done by awarding points by adopting two methods, Measurement and Judgments

- Measurement – One which is measurable
- Judgments - Based on Industry expectations

Measurements used to assess accuracy, precision, and other performance which can be measured in unambiguous way. Mark is awarded in full for a dimension within tolerance and zero when it is out of tolerance.

Judgment is used to assess the quality of performance, about which there may be small differences of opinion.

Module 1

| Competitor | Similarity to Drawing (10 marks) | | | | Sawing (20 marks) | | | |
|------------|-------------------------------------|----|----|-----|----------------------|----|----|-----|
| | J1 | J2 | J3 | Avg | J1 | J2 | J3 | Avg |
| A | | | | | | | | |
| B | | | | | | | | |
| C | | | | | | | | |
| D | | | | | | | | |
| E | | | | | | | | |
| F | | | | | | | | |

| Soldering 00 | | | | Surface Finish (5 marks) | | | | Dimension (10 marks) | On time Finishing (5 marks) | Total 50 |
|-----------------|----|----|-----|-----------------------------|----|----|-----|-------------------------|-----------------------------------|----------|
| J1 | J2 | J3 | Avg | J1 | J2 | J3 | Avg | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Module 2

| Competitor | Similarity to Drawing (5 marks) | | | | Sawing 00 | | | | Soldering (7 marks) | | | |
|------------|------------------------------------|----|----|-----|--------------|----|----|-----|------------------------|----|----|-----|
| | J1 | J2 | J3 | Avg | J1 | J2 | J3 | Avg | J1 | J2 | J3 | Avg |
| A | | | | | | | | | | | | |
| B | | | | | | | | | | | | |
| C | | | | | | | | | | | | |
| D | | | | | | | | | | | | |
| E | | | | | | | | | | | | |
| F | | | | | | | | | | | | |

| Surface Finish (2 marks) | | | | Dimension (5 marks) | On time Finishing (2 marks) | Total (21 marks) |
|-----------------------------|----|----|-----|------------------------|-----------------------------------|------------------|
| J1 | J2 | J3 | Avg | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |

Module 3

| Competitor | Similarity to Drawing (5 marks) | | | | Sawing 00 | | | | Soldering (13 marks) | | | |
|------------|------------------------------------|----|----|-----|--------------|----|----|-----|-------------------------|----|----|-----|
| | J1 | J2 | J3 | Avg | J1 | J2 | J3 | Avg | J1 | J2 | J3 | Avg |
| A | | | | | | | | | | | | |
| B | | | | | | | | | | | | |
| C | | | | | | | | | | | | |
| D | | | | | | | | | | | | |
| E | | | | | | | | | | | | |
| F | | | | | | | | | | | | |

| Surface Finish (3 marks) | | | | Dimension (5 marks) | On time Finishing (3 marks) | Total (29 marks) |
|-----------------------------|----|----|-----|------------------------|-----------------------------------|------------------|
| J1 | J2 | J3 | Avg | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Section - D

D. Infrastructure List

| S.NO | Description | Specification | Item- No. |
|------|--|------------------------------|-------------------|
| 1. | Indian Standard Work-Bench/Adjustable Chair | Please find attached picture | 1 for each Person |
| 2. | Layout, Measuring & Marking Tools | | |
| | Steel Rule | 300 mm/ 12 inch | |
| | Compass/ Divider | 100 mm/ 4 inch | 812-1695 |
| | Vernier Calipers | 150 mm/ 6 inch | Mitutoyo |
| | Permanent Marker / OHP | Red, Blue (Fine Point) | |
| | Pencil | HB, B | |
| | Tri Square | 50 mm Grade II | |
| | Surface Plate | 100 x 150 mm Grade II | |
| | Glue (e.g. Fevi-Stick, Fevi-Quick) | - Commercial Pack | |
| | Waxed Glass Plate | 100x100mm (6mm thick) | |
| | Scriber | 150 mm | |
| | Scraper | 150 mm | 816-0160 |
| | Ring Sizer stick | | |
| 3. | Holding, Gripping & Material Manipulation Tools | | |
| | Steel Tweezers/copper tweezers | Number 10 | 195-0412 |
| | Pin Vice | 4 inch double sided | 820-4350 |
| | Third hand (Double) | - Articulated arm | 816-1900 |

| | | | |
|-----------|--|-------------------------------|----------|
| | Pliers (Flat, Nose, Bent Nose & Round) | - Plastic Grip | 180-1225 |
| | Flush Cutter | - Plastic Grip | 180-1250 |
| | | | |
| 4. | Soldering Equipment | | |
| | Soldering Plate/ Block | - Rotating plate | |
| | Soldering Torch | - Propane/ LPG | |
| | Flux (Safe) & Flux Plate | - Ceramic | |
| | Pickle/ Mordant & Bowl | - Ceramic/ Toughened Glass | |
| | Refractory Plate | - Pumice/ Ceramic | |
| | Soldering Pic | | 830-2211 |
| | Soldering cotton | | |
| 5. | Drilling Equipment/ Machine | | |
| | Flex Shaft Motor/ High Speed Spindle/Micro motor | - Fractional HP (1/10 to 1/3) | 850-0496 |
| | Flex shaft Hanger | - Telescopic | 850-0501 |
| | Drill Bits (0.5, 0.6, 0.7, 0.8, 1.0, 1.2 & 1.4 mm ø) | - HSS | |
| | Krause End Burrs (0.6, 0.8, 1.0mm ø) | Assorted | |
| | Spherical Burrs (0.5 to 2.0 mm stepped/ Preferred) | Assorted | |
| | Bud Burrs (Assorted/ Preferred) | Assorted | |
| | Cone Burrs (Assorted/ Preferred) | Assorted | |
| | Hart Burrs (Assorted/ Preferred) | Assorted | |

| | | | |
|-----------|--|-----------------|------------------------------|
| 6. | Force Concentration Tools | | |
| | Hammer (Riveting, Planishing, Goldsmith's) | - 50 to 150 gms | 821-8235, 821-8700, 821-7030 |
| | Anvil | 2-4 kgs | 821-1655 |
| | Chisels | - Tool Steel | |
| | Wooden/Plastic Hammer | | |
| | Doming block and punch | | |
| | Mandrels set | | |
| | Ring/bangle Mandrel | | |
| | Wire drawing plate | | |
| 7. | Setting, Beading & Engraving Tools | | |
| | Beading Set | #1 to 12 | |
| | Engraver Set (Assorted/ Preferred) | Gem Setting | 166-8000 |
| | Prong Pusher | 3 inch | 816-0100 |
| | Stone Holder | 3-5 prong | |
| | Shellac Block/ Setter's Pitch Block | | |
| | Diamond Mounting Gauge Set | | |
| | Stone Shovel | | |
| | Gemstone Tweezers | Titanium | 195-3282 |
| | Wooden stick | | |
| 8. | Abrasive & Cutting Tools | | |
| | Needle Files (Barrette, Crochet, Halfround, Equalling, Marking, Round, Three Square, Warding) | 150 mm | 701-1660 |
| | Riffler's file Set | 100 -150 mm | |

| | | | |
|------------|---|------------------------|----------------------|
| | Ring File | | 736-0610 |
| | Flat File | | 770-0827, 770-0829 |
| | Piercing Saw | | 187-1122 |
| | SawBlades (2/0, 3/0, 4,0, 6/0 & 8/0) | | 186-0080 to 186-0020 |
| | Buffing Sticks & | | |
| | Emery Paper P 180 to P 800 | | |
| 9. | Observation & Perception Devices | | |
| | Phase Balanced Table Lamp | | |
| | Jeweller's Loupe | Magnification 10x | |
| | Magnification Glass | Illuminated | |
| | Optivisor | Magnification 2.5- 4 x | |
| | Observation Deck | | |
| | Background Paper/ Graph Paper | | |
| | Sylvet Cloth/ Chamois Leather | | |
| | Acetone/ cleaning Fluid | | |
| 10. | Bench Organizers & Receptacles | | |
| | File & Burr Stand | | |
| | Ceramic Bowls | | |
| | Bench Pin & Hardwood Block | | |

| | | | |
|------------|--|--|--|
| | Design sheet holder | | |
| 11. | Accessories & Additional Material | | |
| | Blue Tack/ Mastic Compound | | |
| | Plaster of Paris | | |
| | Table Salt | | |

| | | | |
|------------|--------------------------------------|--|--|
| | Bee's Wax | | |
| | Fabric Glue | | |
| | Modelling clay | | |
| | Painting brush | | |
| 12. | Personal Protection Equipment | | |
| | Lab Coat | | |
| | Side Protection Goggles | | |
| | Ear Plugs | | |
| | Face Mask | | |
| | Fire Extinguisher | | |
| | Shoes | | |
| | Gloves | | |
| | Cap | | |
| 13. | Cleaning | | |
| | Table brush | | |
| | SCOOP | | |
| | Steel container | | |
| | Magnet | | |
| | | | |
| 14. | Machinery | | |
| | Rolling mill (sheet&wire) | | |
| | Wire drawing bench | | |
| | Ultra sonic Machine | | |
| | Grinding machine | | |
| 15. | Gas | | |
| | Gas Rs./ p.m/oxygen | | |

Indian Standard Work-Bench



Section –E

E. Instructions for candidates

- * Competitors must use only supplied materials.
- * After each module pieces should be submitted for marking
- *should follow the start and finishing time.

Section – F

F. Health, Safety, and Environment

1. All accredited participants, and supporting volunteers will abide by rules and regulations with regards to Health, Safety, and Environment of the Competition venue.
2. All participants, technicians and supporting staff will wear the required protective Personnel clothing. The Competitors must wear proper dress suiting the task and wear goggles while performing.
3. All participants will assume liability for all risks of injury and damage to property, loss of property, which might be associated with or result from participation in the event. The organizers will not be liable for any damage, however in case of Injury the competitor will immediately inform the immediate organizer for medical attention.
4. Proper ventilation in the work place
5. Running water should be near to work place.