

Comprehensive Document

Jewellery- Skill 27

By:

GJSCI, Mumbai

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Introduction

This is an intimation & invitation to all jewellery practitioners to participate in selection for upcoming Worldskills India Competition in month of March, 2018. This selection is open to all Indian Nationals between age of 18- 21 of years.

The skill of jewellery making consists of the manufacture of fashion accessories using precious metal. A jewellery maker can make exclusive individual pieces for use, pieces ready to be set with precious gemstones or prototypes for reproduction in numbers through lost-wax casting.

A jewellery maker will usually work from detailed drawings created by a jewellery designer. They will therefore need to be able to

- Correctly interpret these drawings to create a jewellery piece as envisioned by the designer.
- A jewellery maker must be able to respect the shapes and forms of the designer's original concept and should be able to interact with the designer, giving and receiving feedback regarding the manufacturing process.
- A jewellery maker's skill-set does not necessarily require direct contact with clients as there will usually be intermediaries involved.
- A jewellery maker may also be required to replicate a piece directly, or use jewellery making skills to renovate or repair an existing piece.

Dealing with precious metals, a jewellery maker needs to be precise, work economically and avoid wastage of materials.

- The work is intricately detailed and requires a high level of skill, focus and concentration. Once the jewellery maker has finished a piece it may progress to further phases of the manufacturing process requiring goldsmith's industry skills other than jewellery making, such as gem setting and casting.

For this reason a jewellery maker must have some knowledge and understanding of other goldsmith's industry skills. They must, for example, have an appreciation of gemstones, their characteristics, cuts, uses and impact on the finished piece. Similarly they must be aware of the different phases of reproduction through casting.

Jewellery makers will work in a goldsmith's workshop using specialist tools and equipment. Due to the intricate nature of the work, many of the tools are delicate and therefore need to be used and handled with extreme care. Some jewellery makers may be independent, but more often they will work in a workshop with other jewellery makers or technicians with other specialist goldsmith's industry skills.

They must always observe **Skill-specific health and safety procedures and regulations**. Jewellery is made from precious metals and gemstones, which are highly valuable. A jewellery maker must therefore

act with complete honesty and integrity and be fully aware of security and the, regulations relating to the purchase, production and sale of precious metals, gemstones and finished

ACCREDITED PARTICIPANTS - COMPETITORS

NUMBER OF COMPETITORS

Various Levels of competitions will be held with an increase in complexity.

First round involves solving Level 1 project and submitting it along with registration.

The solved Test project can be submitted to either

1) GJSCI, Mumbai

or

2) GBD Studios, Indore

This is to make the competition fair and available to those individuals that lack institutional affiliations or support from any organisation.

Noble intent is to bring into the fold of learning, people from humble & economical background on their own.

(This will nurture the restrictive practices at some organisations. However such individuals will have to pass qualifying levels at GBD Studios, Indore).

Based on result and selection from Test project of Level 1, details of Level 2 competition will be announced. Each region Member may enter two Competitors per skill competition till national finals. This means every region will finally send up to two competitors for National finals.

AGE LIMIT

- Competitors must not be older than 22 years in the year of the Competition, Born on or after 1st January 1997.
- Any exceptions sought in respect of a particular skill competition must be cleared by Marshal. This decision is final and binding.

COMPETE ONCE ONLY

The winners of this skill competition will be eligible for competing in regionals and/or Nationals WSI 2017. However, A Competitor may compete in only one WorldSkills Competition.

Wild Card Entries

Four wild card entries are reserved for regional rounds at Sole Discretion of Marshal to ensure

- Healthy competitions in case of local clustering.
- Inclusion of Exceptionally talented candidates.
- Level playing field by sustaining heterogeneity.
- Competitive Spirit & stimulate.
- To prevent complacency and slackness from setting in

Two wild Card Entries are reserved at Sole Discretion of Marshal for National finals to be held in New Delhi. Any and all decisions in this regard are final, binding and cannot be appealed elsewhere.

COMPETITORS WITH DISABILITIES

WorldSkills International promotes cooperation with the International Abilympics Federation.

- Disabled Competitors may participate in the Competition insofar as their **disability does not prevent them from carrying out Test Projects within the set time**. However, additional time may be provided for work preparation and installation of the workplace.
- Their Test Projects shall be assessed in accordance with WorldSkills International guidelines.
- Exceptions concerning maximum age limit shall be dealt with appropriately by the Technical Committee, subject to ratification by the General Assembly.
- The Competition Organizer may carry out, at the same time as the WorldSkills Competition, a separate competition for Competitors with disabilities using separate guidelines. In this case, Test Projects will be assessed under different criteria, and awards will be presented at the official Closing Ceremony following presentation of the WorldSkills International awards.

BEFORE THE COMPETITION

The Marshal (with host Member Organization) is responsible for ensuring that all compatriot Competitors are provided with the following information.

- Access to the Competitor Centre on the website www.GJSCI.org/competitorcentre where all relevant documentation is provided. For regional translations an interpreter will be provided by host organization.
- Relevant Technical Description and Infrastructure List
- Competition Rules
- Code of Ethics
- Health, Safety, and Environment documentation
- Test Projects circulated before the Competition (e.g. three weeks before)
- Briefing on any additional tools and/or any equipment or material(s) that may be required
- Culture, customs and laws of the Host organization/region may be respected

AT THE COMPETITION

It is responsibility of host organization under guidance of Marshal that Competitors must receive detailed information about the Test Project and its assessment in the language of their choice, with particular reference to:

- Information on assessment criteria including the Mark Summary Form but not the final detailed Marking Forms, and
- Detailed information regarding auxiliary materials and aids which may or may not be used (e.g. templates, drawings/prints, patterns, gauges).

Competitors must receive detailed information about the organization of the Competition, including:

- The Health, Safety, and Environment Agreement including measures arising from non-compliance,
- Competition timetables indicating lunch breaks and Test Project/module completion times,
- Information on regulations governing Entry and Exit times to and from the workshop, and the conditions under which such entries and exits may be allowed,
- Information on when and how machines may be tested, and
- Information as to the nature and scope of sanctions that may arise from breaches of these Competition Rules and the Code of Ethics. Competitors must be informed that:
 - They are responsible for the safe use of all tools, machines, instruments and auxiliary materials they bring in accordance with the safety regulations of the host country,
 - Before commencement of the Competition, Skill Management Team will conduct a check for prohibited materials, tools or equipment in accordance with the Technical Description.
 - A daily check of toolboxes will take place in all competitions.

FAMILIARIZATION

Before the Competition starts, Competitors have a minimum of three hours and a maximum of Five hours in which to prepare their workplaces and to check and prepare tools and materials. Any exceptions to this rule will need approval of the Workshop Manager and approved by Marshal.

Under the guidance of Marshal, Experts and Workshop Managers, Competitors will have this time and support to become familiar with equipment, tools, materials and processes, and to practice using equipment and materials to be used in the Competition.

Competitors have a **right to ask questions**. Where processes are particularly difficult, a subject matter instructor shall be available to demonstrate the process(es) and Competitors shall be given an opportunity to practice. At the end of this familiarization period, Competitors must confirm that they are familiar with everything by **signing the Familiarization Agreement**.

CHECKING OF MEASURING INSTRUMENTS

Measuring instruments must be compared with those of the Jury in order to avoid errors.

A master gauge, Vernier Caliper in this case, shall be kept with Reference datum for marking purpose. Competitors are encouraged to calibrate their tools with reference to this set.

PERSONAL DETAILS AND LANGUAGE PREFERENCE

Competitors are required to provide their passports or ID cards to validate identities and dates of birth. A passport or ID card does not necessarily have to be of the same country or region that they are representing at the Competition. In addition, the language in which the Competitor has to receive the Test Project and the Mark Summary Form will be checked and recorded.

COMMUNICATION CARD

All Competitors are provided with a Communication Card with one red side and one green side with symbols to facilitate visual communication.



Figure 1. Marshal demonstrating the use of communication card.

DURING THE COMPETITION

STARTING AND FINISHING WORK

The Competitor must wait for the Marshal/ SMT to give orders to start and to finish work.

COMPETITOR COMMUNICATION AND CONTACT

Competitors and their compatriot Expert may communicate at any time, other than when the competition is officially underway. This open communication includes the lunch period. The exception to the above is skill competitions in which there is fault-finding and Competitors will be served lunch in the workshop. No contact may be made with the compatriot Expert during competition time without the presence of a non-compatriot Expert. No contact may be made with other Competitors or guests during competition time without the permission of the Chief Expert. Periods of time (15-30 minutes) shall be timetabled each morning and each evening of the Competition for official communication between compatriot Experts and Competitors (Competitor Communication). The use of any equipment to record or exchange information such as pens, paper, mobile phones or electronic devices is prohibited

ILLNESS OR ACCIDENT

The Marshal and the Competitor's Team Leader and SMT must be told immediately if any Competitor becomes ill or has an accident. The Skill Management Team will decide whether or not time lost can be made up. Where a Competitor has to withdraw due to illness or accident, marks will be awarded for any work completed. Every effort will be made to facilitate the return of the Competitor and to allow for lost time. This must be recorded on both the Accident/Incident and Competitor Timeout Forms.

DISCIPLINARY ACTION

Competitors accused of dishonest conduct, or who refuse to comply with regulations and/or directions, or who behave in a manner prejudicial to the proper conduct of the Competition will be subject to the Issue and Dispute Resolution procedures.

In this regard, SMT is authorized to take decisions. Marshal's decision will be final and binding.

HEALTH, SAFETY, AND ENVIRONMENT

Failure by a Competitor to comply with safety directions or instructions may incur a loss of marks in respect of inadequate safety. Continuous unsafe practice may result in Competitors being temporarily or permanently removed from the Competition.

REVIEW TEST PROJECT AND MARK SUMMARY FORM

Immediately before the start of the Competition, SMT shall give the Competitors the Test Project and Mark Summary Form. A minimum of one hour, which is not to be included in the actual competition

time, is allowed to study these materials and to ask questions. If the Test Project is modular, then the SMT shall give the Test Project and Mark Summary Form to Competitors before each module. The minimum time allowed in this case, i.e. modular work, to study the information is 15 minutes, which is not to be included in the actual competition time, prior to each module.

AFTER THE COMPETITION

EXCHANGE OF VIEWS AND EXPERIENCES

When the Competition is over, Competitors shall be given one hour to exchange views and experiences with other Competitors and Experts.

PACKING UP

The Marshal/Lead SMT shall give instructions in respect of packing of tools and equipment. The workshop, including materials, tools and equipment, must be left neat and tidy. Strict adherence to Health, Safety, and Environment regulations must occur during this period.

DUTY OF CARE

Each Competitor is guaranteed to be provided with the following:

- Familiarization time
- Competition timetable
- Written Test Project instructions in their language of choice
- Mark Summary Form for the Test Project
- Health, Safety and Environment Agreement
- Code of Ethics
- Competitor Communication
- Access to their Interpreter/Translator whenever necessary
- Access to their Team Leader(s) at all times

HONESTY, FAIRNESS, AND TRANSPARENCY

Competitors have the right to expect fairness, honesty, and transparency during the Competition in terms of the following:

- Clear and unambiguous written instructions
- Every Competitor has the right to expect that no other Competitor will receive unfair assistance or any intervention that may provide an advantage
- No advantage shall be given to any Competitor or group of Competitors by providing them at any time with information about the Test Project earlier than the same information is given to all Competitors

- The Mark Summary Form shall be uniform and shall provide no advantage to any particular Competitor
- All necessary equipment and material specified in the Technical Description and Infrastructure List
- The assistance necessary from Experts and officials to ensure that Competitors are able to complete the Test Project shall be uniform and shall provide no advantage to any particular Competitor.
- Interference by officials or spectators that may hinder or assist Competitors in the completion of their Test Project is forbidden.
- Accredited personnel at the Competition shall ensure that the above principles of honesty, fairness and transparency are observed at all times.

Infrastructure List

Materials & Equipment to be provided by host Organization

The Infrastructure List details all equipment, materials and facilities provided by host institute or manufacturing setup. Silver Sections are brought in by GJSCI/Host Organization according to test papers for regional rounds in respective cities.

1. Work Area for Candidates
2. Conference room for Jury/ Briefing Candidates
3. Work Bench for Specified number of candidates (Sample Pictures attached for Reference See Annexure 1)
4. Pendant motors on workstations
5. Metal Melting and rolling mill
6. General Safety Equipment/ Fire Extinguishers.
7. Locker for the Precious metal and partially/ completed Modules.
8. General tools/equipment's for any peripheral work on test projects.

A key note on competition area is as follows

- The host organization will be required to provide a level playing field for participating candidates.
- The place where competition rounds take place is referred to as 'Arena'.
- This area will be cordoned off a day prior to competition. It will remain closed and unavailable for routine activities for the entire duration of competition.
- Easy Access to restrooms, water supply is essential. A first Aid kit is also to be placed in proximity to this location.
- A clean, well ventilated and climate controlled place is preferred.
- There will be general press coverage as well as photographic documentation, necessary permissions and clearances must be given in advance.

Materials, Equipment and Tools to be carried by Competitors in their toolbox

Toolbox Size

A reasonable sized toolbox will be allowed inside the Arena after check by Marshal and or SMT. Exceptionally large and oversized tool boxes may please be avoided.

Non-consumable materials, equipment and tools to be carried by the Competitor

Quantity/ Description

- 1 Set of Hand files
- 1 Set of Needle-point files
- 1 Rounding hammer
- 1 Steel block
- 1 Saw frame
- 1 Set of Pliers
- 1 Marking tool
- 1 Square
- 1 Measuring rule
- 1 Compass, dividers
- 1 Bench pin
- 1 Soldering tweezers
- 1 Soldering torch
- 1 Soldering block
- 1 Clear protection glasses
- 1 Chisel/ engraver
- 1 Scraper
- 1 Magnifying glass/ loupe
- 1 Magnet

Quantities specified are recommended as the minimum – Competitors may bring more than one. Additional tools not listed are permitted subject to a complete tool box inspection

Consumable materials to be brought by Competitor

Quantity/ Description

- 1 Saw blades Assortment
- 1 Modelling clay/ Wax
- 1 Soldering fluid/flux
- 1 Heat resistant paste
- 1 Set of sanding paper – assorted grit
- 1 Frasers/ milling cutters/ burrs
- 1 Drills assorted sizes
- 1 Plaster

- 1 Cleaning products (no acid)
- 1 Iron binding wire (60 cm)
- 1 1 mm copper sheet (15 cm x15 cm)
- 1 600 Emery Paper (American Standard) or equivalent / 1 sheets

Quantities specified are recommended as the minimum – Competitors may bring more than one. Additional Materials not listed are permitted subject to a complete tool box inspection by Marshal assisted by an Expert on subject. Specially formed tools will be removed from boxes and Confiscated/ returned to candidate on completion of competition.

NOTE: Pickle will be supplied by the Competition Organiser and listed in the Infrastructure List. Competitors are not to use any other Pickle than that supplied.

Note: Tool list with images can be viewed in annexure 6 for reference.

Skill-Specific Safety Requirements

All participants require a serious, conscientious attitude to health and safety instructions and required regulations.

The Competition venue in general and all skill areas will be inspected by the Marshal, Host organization representative, SM team members before the Competition starts and during the event. The Competition Organizer will provide an Incident Response Plan prior to the event and will be implemented during the Competition if required.

Refer to Host organization/ Health & Safety documentation for regulations. In case of Difference, more stringent one applies.

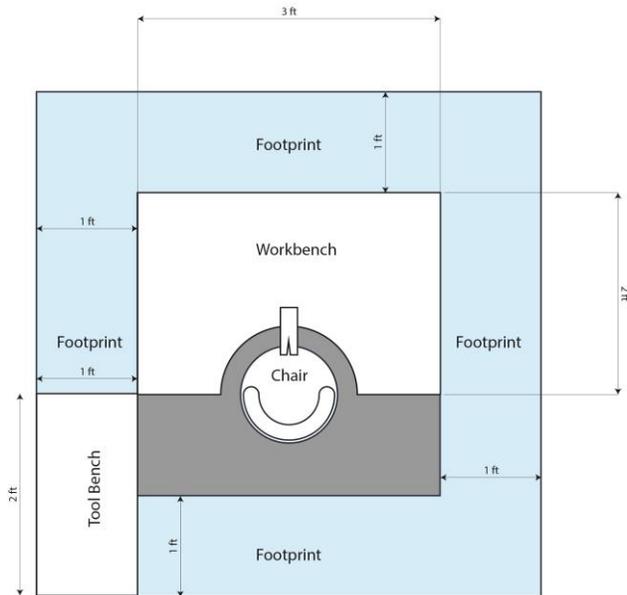
- Competitors must wear transparent eye protection when required.
- Practical clothing that covers the body to knee e.g. Apron or coveralls.
- Enclosed footwear must be worn within the workshop area.

Proposed workshop and workstation layouts

Workstations will be allocated by random draw at the start of the familiarisation period. Workshop layouts are indicative and may change due to space limitations.

Minimum space required for one candidate is

5 ft X 5 ft = 25 sqft



Project Description

The entry test project is a simple pendent with a motifs around a central unit. It is aimed at testing elementary skills that are essential for jewellery making. It involves simple processes like material bending, filing and soldering for completion of project.

The project requires bare minimum, basic tools and therefore, can be attempted by practitioners and students alike. Test material is Fine silver (950) and candidates are free to select appropriate gauge material for making the articles.

Evaluation criterion are listed as follows.

- Similarity to Drawing. Front and sides
- Piercing, Decorative & Back Holes
- Neatness of solders
- Dimensions (critical dimensions are marked in drawing)
- Finish (P 600 grit sandpaper only) No buffing or electroplating is to be done

The candidates are required to mail the entries with the completed forms to GJSCI, Mumbai/ Regional office. These must reach GJSCI/ GBD office on or before the due date. Respective Mailing addresses are contained in Annexures.

Test Project Description

The **entry test project** (Annexure 2) is a simple pendent with a motifs around a central unit. It is aimed at **testing elementary skills** that are essential for **jewellery making**. It involves simple processes like material **bending, filing** and **soldering** for completion of project.

The project requires bare minimum, basic tools and therefore, can be attempted by practitioners and students alike. Test material is Fine silver (950) and candidates are free to select appropriate gauge material for making the articles.

Modules evaluation criterion

- Similarity to Drawing. Front and sides
- Piercing, Decorative & Back Holes
- Neatness of solders
- Dimensions (critical dimensions are marked in drawing)
- Finish (P 600 grit sandpaper only) No buffing or electroplating is to be done

The evaluation will be done by panel of industry Experts. Experts will be briefed by Marshal about marking scheme (Annexure 3) and a test run prior to judging will be done to ensure fairness and transparency.

Marking criterion, sub criterion and aspects are defined. These are suitably modified for a two day competition. In case of divergent views, dominant groups, or any other activity that may breach fairness or transparency.

Martial is Authorized to Advise Jury, evaluate and edit marking. In case of a hung jury, collapse of marking process or deviations Marshal's decision will be Final & Binding.

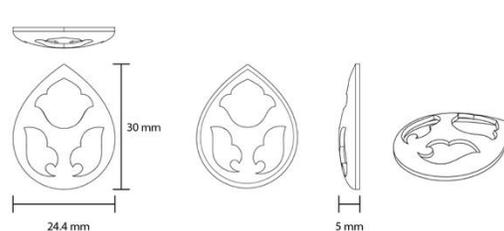
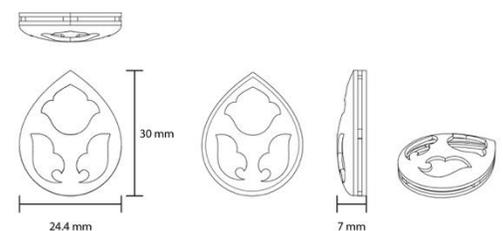
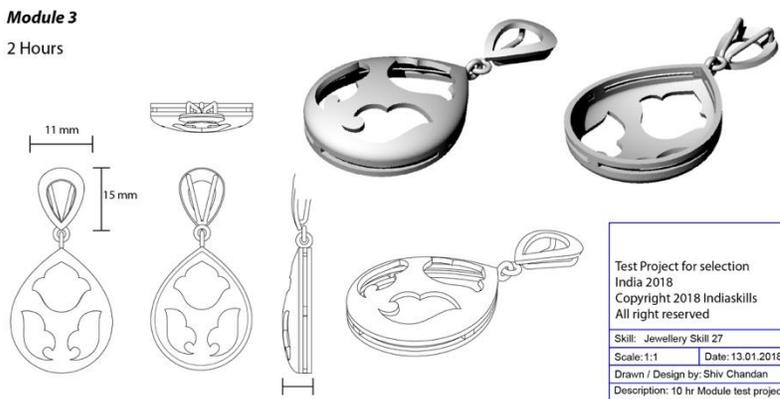
NB- Submitted Test projects are property of GJSCI and will not be returned. They will be studied, archived and subsequently repurposed.

Annexure 1



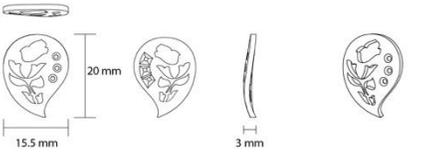
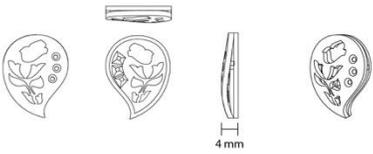
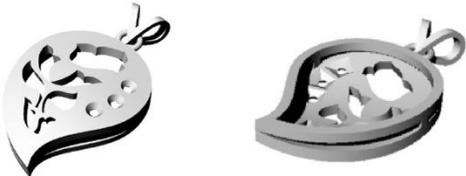
Annexure 2

Test Project - Zonal Round (Level 1)

<p style="text-align: center;">Module 1 5 Hours</p> 	<p style="text-align: center;">Module 2 3 Hours</p> 																				
<p>Module 3 2 Hours</p> 	<p>Material List</p> <ul style="list-style-type: none"> 60 X 45 mm X 1.2 mm silver sheet 100 mm X 1 mm X 1 mm square wire 60 mm X 1 mm round silver wire <p>Hard, medium, easy solder</p>																				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-size: small;"> <p>Test Project for selection India 2018 Copyright 2018 Indiaskills All right reserved</p> </div> <div style="text-align: right;">  <p>IndiaSkills Competition</p> </div> </div> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr> <td colspan="2">Skill: Jewellery Skill 27</td> <td colspan="2"></td> </tr> <tr> <td>Scale: 1:1</td> <td>Date: 13.01.2018</td> <td colspan="2">Paper: A4</td> </tr> <tr> <td colspan="2">Drawn / Design by: Shiv Chandan</td> <td colspan="2">Drawing No: Level 01</td> </tr> <tr> <td colspan="2">Description: 10 hr Module test project</td> <td>Rev: 1</td> <td>Page: 1 of 1</td> </tr> <tr> <td>Appd:</td> <td></td> <td>Sign:</td> <td></td> </tr> </table>		Skill: Jewellery Skill 27				Scale: 1:1	Date: 13.01.2018	Paper: A4		Drawn / Design by: Shiv Chandan		Drawing No: Level 01		Description: 10 hr Module test project		Rev: 1	Page: 1 of 1	Appd:		Sign:	
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Drawn / Design by: Shiv Chandan		Drawing No: Level 01																			
Description: 10 hr Module test project		Rev: 1	Page: 1 of 1																		
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Annexure 3

Test Project Regional Round (Level 2)

<p>Module 1 5 Hours</p> 	<p>Module 2 4 Hours</p> 																				
<p>Module 3 3 Hours</p> 	<p>Material List</p> <p>30 X 20 mm X 1 mm silver sheet 100 mm X 1 mm X 1 mm square wire 20 mm X 1 mm round silver wire</p> <p>Hard, medium, easy solder</p>																				
	<p>Test Project for selection India 2018 Copyright 2018 Indiaskills All right reserved</p> <p style="text-align: right;"> IndiaSkills Competition</p> <table border="1" style="width: 100%;"> <tr> <td colspan="2">Skill: Jewellery Skill 27</td> <td colspan="2"></td> </tr> <tr> <td>Scale: 1:1</td> <td>Date: 14.01.2018</td> <td colspan="2">Paper: A4</td> </tr> <tr> <td colspan="2">Drawn / Design by: Shiv Chandan</td> <td colspan="2">Drawing No: Level 02</td> </tr> <tr> <td colspan="2">Description: 12 hr Module test project</td> <td>Rev: 1</td> <td>Page: 1 of 1</td> </tr> <tr> <td colspan="2"></td> <td>Appd:</td> <td>Sign:</td> </tr> </table>	Skill: Jewellery Skill 27				Scale: 1:1	Date: 14.01.2018	Paper: A4		Drawn / Design by: Shiv Chandan		Drawing No: Level 02		Description: 12 hr Module test project		Rev: 1	Page: 1 of 1			Appd:	Sign:
Skill: Jewellery Skill 27																					
Scale: 1:1	Date: 14.01.2018	Paper: A4																			
Drawn / Design by: Shiv Chandan		Drawing No: Level 02																			
Description: 12 hr Module test project		Rev: 1	Page: 1 of 1																		
		Appd:	Sign:																		

Note : Final test project will have 30% changes.

S.NO	CRITERION	SUB CRITERION		module 1		module 2		Total
				marks	Given	marks	Given	
A	Similarity to Drawing	Appearance		6		4		
		Symmetry		3		2		
		Firmness		3		2		
B	Sawing	Decorative (Floral Pattern)	Front	5		0		
			Back	5		0		
C	Soldering	Neat-Ness	Inner post/edge	6		1		
			Outer post/edge	6		1		
		Firmness	Inner post/edge	2		1		
			Outer post/edge	2		1		
D	Surface	Geometry		7		3		
	Finish	RMS		7		3		
E	Dimensions	width		6		4		
		Height		6		4		
F	Completion in Time			6		4		
	Total			70		30		
			Total					100



Annexure 4

Marking Scheme