

## JOB ROLE OVERVIEW

### Gas Tungsten Arc Welding (GTAW) (ISC/Q0911)

Role Description	Perform manual operations for performing Tungsten Inert Arc Welding (GTAW) also known as Gas Tungsten Arc Welding (GTAW) and independently carry out TIG (GTAW) weld operations for welding joints in all positions as per Welding Procedure Specification.
Version	1.0
NSQF Level	4
Minimum Educational Qualifications	Class 10th pass preferably
Maximum Educational Qualifications	ITI Pass
Training (Suggested but not mandatory)	<ul style="list-style-type: none"> <li>• Welding Processes/fitment and precisions along with classification &amp; Coding of welding electrodes</li> <li>• Selection of Tungsten Rod composition, dia, gas requirement and purging</li> <li>• Basic Welding Metallurgy and Weldability of metals-Ferrous &amp; Non-Ferrous</li> <li>• Weld Defects/distortion - their stress, control, cause &amp; remedies</li> <li>• Welding Consumables and Control of welding parameters based on welding material</li> </ul>
Minimum Job Entry Age	18 years
Experience	<ul style="list-style-type: none"> <li>• 1-2 years' experience in similar function</li> <li>• In lieu of minimum qualification the incumbent should have 4-5 years of relevant work experience</li> </ul>

#### Applicable National Occupational Standards (NOS)

1. **ISC/N0911:** Perform Tungsten Inert Gas (TIG) Welding also known as Gas Tungsten Arc Welding (GTAW) Welding
2. **ISC/N0910:** Manually cut metal and metal alloys using oxy-fuel gases
3. **ISC/N0008:** Use basic health and safety practices at the workplace
4. **ISC/N0009:** Work effectively with others

#### Assessment Guidelines

1. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria.
5. To pass the Qualification Pack, every trainee should score a minimum of 60% in every NOS.
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.





## PLACEMENT OPPORTUNITIES

  
**TATA STEEL**

  
सेल SAIL  
स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड  
STEEL AUTHORITY OF INDIA LIMITED

  
**JINDAL**  
STEEL & POWER

  
**MDHANI**

  
**JSW**

  
राष्ट्रीय इस्पात निगम लिमिटेड  
BASTRIYA ISPAT NIGAM LIMITED  
**VIZAG STEEL**  
Pride of Steel

एन एम डी सी  
  
**N M D C**

  
**SIMA**  
Sponge Iron Manufacturers  
Association

  
THE INSTITUTE  
OF INDIAN  
FOUNDRYMEN

  
**IFAPA**  
The Indian Ferro Alloy Producers' Association

  
**TRF Limited**  
A TATA Enterprise

  
**TVS**

  
**EUREKA  
FORBES**

  
**ESSAR**  
STEEL

  
**FK**

  
**Reliance**  
RETAIL  
Aapki khushi. Hamari khushi.

  
**L&T Hydrocarbon**

  
**C&S**  
electric

  
**TEXMO**  
INDUSTRIES  
Since 1956

  
**YAMAHA**

  
**WELSPUN**

  
**Godrej**

  
**Aarti**

  
**ALPINE**  
Electrical  
Specialists in domestic electrical installation

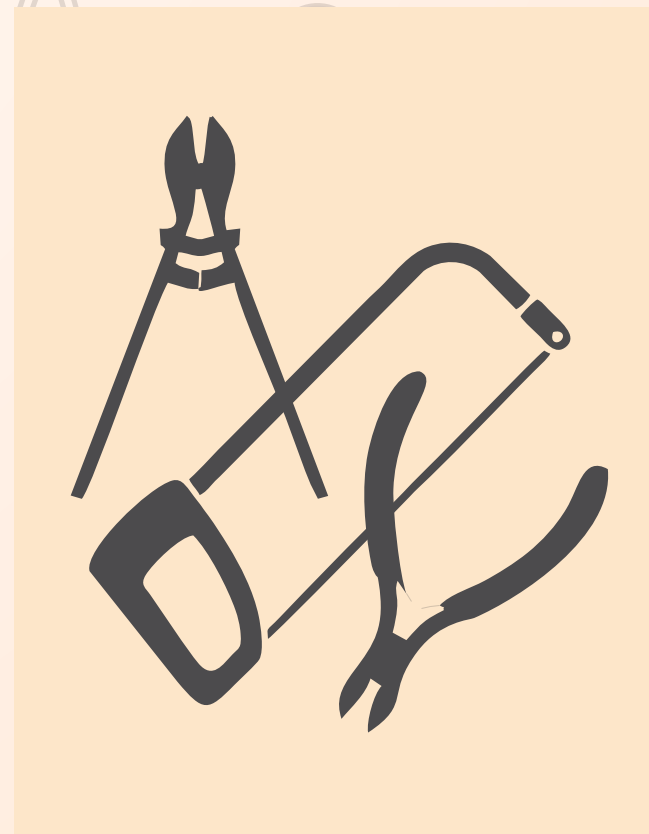
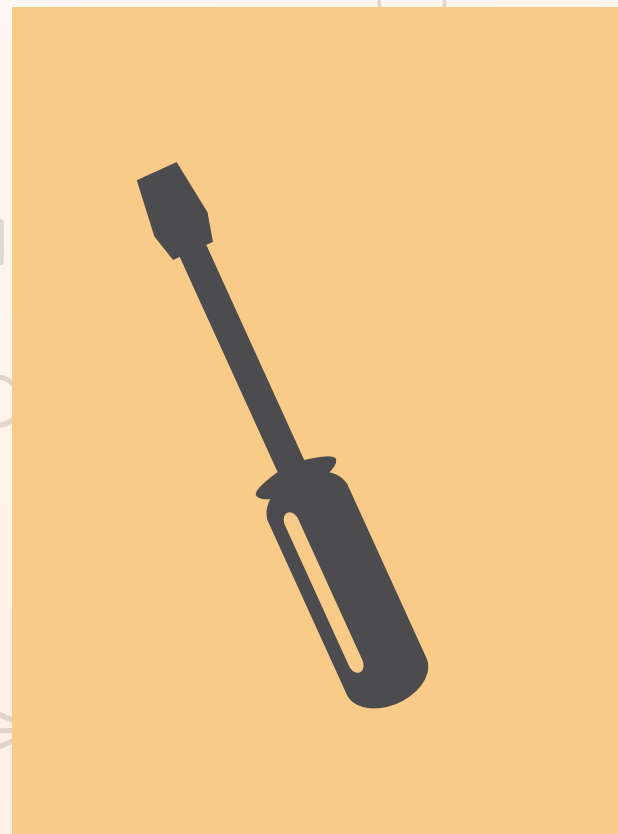
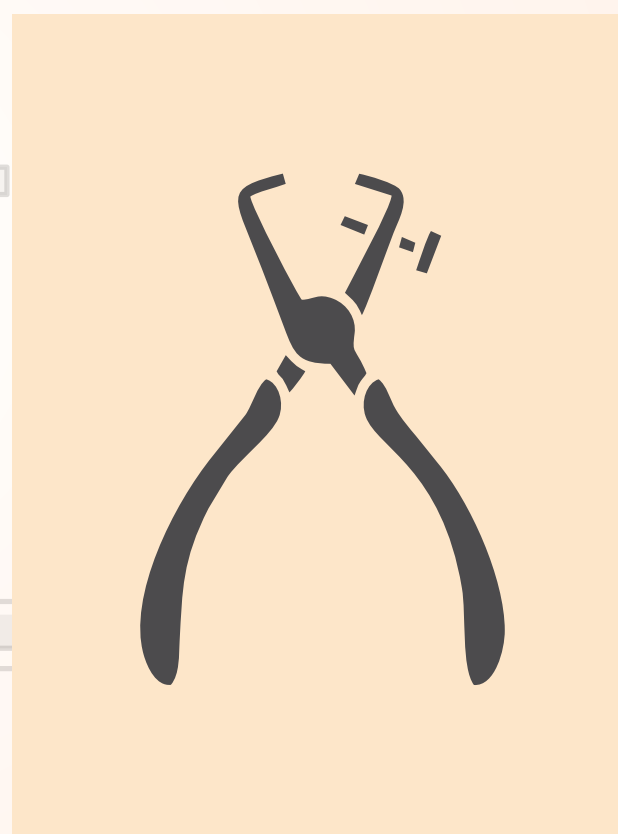
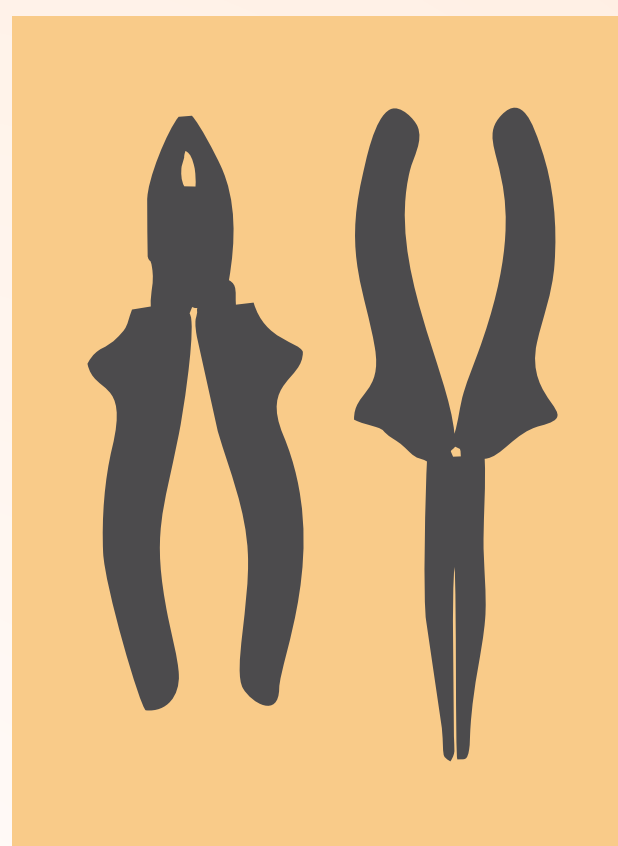




## EQUIPMENT LIST

### Fitter-Electrical Assembly (ISC/Q1001)

1.	Steel tape, 15 m length	x10
2.	Plier insulated, 150 mm	x10
3.	Screw driver, 100 mm	x10
4.	Electrician connector, screw driver insulated handle thin stem, 100 mm	x10
5.	Knife double bladed electrician	x10
6.	Neon tester	x10
7.	Hammer, cross peen with handle	x10
8.	Spanner adjustable 150 mm, 300mm	x2
9.	Hand drill machine	x1
10.	Allen key	x1
11.	Crimping tool	x2
12.	Wire stripper 20 cm	x2
13.	Hacksaw frame 200 mm 300 mm adjustable	x2
14.	Pliers flat nose 150 mm	x2
15.	Gauge, wire imperial	x2
16.	Soldering iron 25 watt, 65 watt, 125 watt	x1
17.	Multi meter (analog) 0 to 1000 m ohms, 2.5 to 500 v	x2
18.	Digital multi meter	x5
19.	A.C. Voltmeter M.I. 0 -500V A.C	x1
20.	Ammeter MC 0-5 A, 0- 25 A	x1
21.	Three phase transformer, shell type oil cooled with all mounting 3 kva, 415/240 V, 50 hz, (delta/star)	x10



## CAREER MAP FOR ELECTRICAL MAINTENANCE DEPARTMENT

### Electrical Maintenance Department in Iron & Steel Industry

- Fitter - Electrical Assembly
- Fitter - Electronic Assembly
- Fitter - Instrumentation

