



# Model Curriculum

## Manual Packaging and Marking Operation

**SECTOR: IRON & STEEL**  
**SUB-SECTOR: IRON MAKING, STEEL MAKING, HOT ROD  
MILL AND COLD ROD MILL**  
**OCCUPATION: OPERATIONS**  
**REF ID: ISC/Q0704**  
**NSQF LEVEL: 2**



## Certificate

### CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

INDIAN IRON AND STEEL SECTOR SKILL COUNCIL

for the

### MODEL CURRICULUM

Complying to National Occupational Standards of

Job Role/ Qualification Pack: 'Manual Packaging & Marking Operation' QP No. 'ISC/Q 0704 NSQF Level 2'

Date of Issuance: December 22nd, 2015

Valid up to: December 21st, 2016

\* Valid up to the next review date of the Qualification Pack

  
Authorised Signatory  
(Indian Iron and Steel Sector Skill Council)



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# Manual Packaging and Marking Operation

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Manual Packaging and Marking Operation”, in the “Iron & Steel” Sector/Industry and aims at building the following key competencies amongst the learner.

<b>Program Name</b>	<b>Manual Packaging and Marking Operation</b>		
<b>Qualification Pack Name &amp; Reference ID.</b>	<b>Manual Packaging and Marking Operation ISC/Q0704</b>		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	30-12-2016
<b>Pre-requisites to Training</b>	Minimum qualification – 8 <sup>th</sup> standard		
<b>Training Outcomes</b>	<b>After completing this programme, participants will be able to:</b> <ul style="list-style-type: none"> <li>Manually packing material and marking the identity of the material on the wrap</li> <li>Safely loading the packed &amp; marked material on to a vehicle</li> <li>Use basic health and safety practices at the work place</li> <li>Works effectively with others</li> </ul>		

This course encompasses 4 out of 4 National Occupational Standards (NOS) of “Manual Packaging and Marking Operation” Qualification Pack issued by “Indian Iron & Steel Sector Skill Council”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<b>Over view of Iron &amp; Steel Industry</b>  <b>Theory Duration</b> (hh:mm) 04:00 <b>Practical Duration</b> (hh:mm) 00:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Understanding Iron &amp; steel industry</li> <li>Understanding types of Iron &amp; Steel Industry</li> <li>Understanding products of Iron &amp; Steel industry</li> <li>Activities in Iron &amp; Steel Industry</li> </ul>	PPTs of Iron and steel manufacturing, Charts showing the same
2	<b>5S &amp; House keeping</b>  <b>Theory Duration</b> (hh:mm) 08:00 <b>Practical Duration</b> (hh:mm)	<ul style="list-style-type: none"> <li>Identification of bottlenecks in functioning of work place</li> <li>Various methods of housekeeping both pre-work &amp; post-work as well</li> </ul>	PPTs of 5S, Display Charts of 5S, Audit Checklists of 5S

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	06:00  <b>Corresponding NOS Code</b> ISC/N0008		
3	<b>Manually packing material and marking the identity of the material on the wrap</b>  <b>Theory Duration</b> (hh:mm) 18:00  <b>Practical Duration</b> (hh:mm) 60:00  <b>Corresponding NOS Code</b> ISC/N0024	<ul style="list-style-type: none"> <li>Pack the material manually</li> <li>Inspect and prepare crane system as per Standard Operating Procedure (SOP)</li> </ul>	Paints, Marking tools and tags, hand tools for manual packings
4	<b>Safely loading the packed &amp; marked material on to a vehicle</b>  <b>Theory Duration</b> (hh:mm) 24:00  <b>Practical Duration</b> (hh:mm) 120:00  <b>Corresponding NOS Code</b> ISC/N0025	<ul style="list-style-type: none"> <li>Fix scotch block/dunnage under the vehicle for preventing vehicle movement</li> <li>Fix scotch block/dunnage under the vehicle for preventing vehicle movement</li> <li>Weld isolation hook and/or U-hook on the wagon floor</li> <li>Lash the chain or strap around the coil and securing it with the fixture on the floor for ensuring steadiness during transportation</li> </ul>	Welding, dunnage, scotch block, cleat and hook. Power tools and hand tools, Steel strap and chains
5	<b>Use basic health and safety practices at the workplace</b>  <b>Duration</b> (hh:mm) 04:00  <b>Practical Duration</b> (hh:mm) 18:00  <b>Corresponding NOS Code</b> ISC/N0008	<ul style="list-style-type: none"> <li>Health and safety procedures</li> <li>Fire safety procedures</li> <li>Emergencies, rescue and first aid procedures</li> </ul>	PPE, Different Type of Safety Sign, First Aid Box, Step Ladder, Sample Accident reports, Fire Extinguishers, Items required for fire extinguisher and fire Safety
6	<b>Work effectively with others</b>	<ul style="list-style-type: none"> <li>Ensure appropriate communication with superiors, peers and others as applicable at work place</li> </ul>	Communication skills PPTs, Posters Team



Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<b>Theory Duration</b> (hh:mm) 08:00 <b>Practical Duration</b> (hh:mm) 08:00  <b>Corresponding NOS Code</b> ISC/N0009	<ul style="list-style-type: none"><li>• Demonstrate appropriate behaviour and etiquette at work place</li></ul>	management posters
	<b>Total Duration</b>  <b>Theory Duration</b> <b>66:00</b>  <b>Practical Duration</b> <b>204:00</b>	<b>Unique Equipment Required:</b> <ul style="list-style-type: none"><li>• Sample Fabrication drawings,</li><li>• Basic hand tools such as spanner, pliers, pullers &amp; power tools</li><li>• Measuring &amp; Precision measuring instruments such as a micrometer, Vernier callipers,</li><li>• Paints, Marking tools and tags, hand tools for manual packaging.</li><li>• Material and Equipment for cleaning</li><li>• Welding setup, dunnage, scotch block, cleat and hook. Power tools and hand tools, Steel strap and chains</li><li>• Personal protective Equipment's and clothes</li><li>• Different Type of Safety Sign, First Aid Box,</li><li>• Safety instrument and clothing, Step Ladder, Sample Accident reports</li><li>• Fire Extinguishers, Items required for fire extinguisher and fire Safety</li></ul>	

Grand Total Course Duration: **270Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by Indian Iron and Steel Sector Skills Council)

## Trainer Prerequisites for Job role: “Manual Packaging and Marking Operation” mapped to Qualification Pack: “ISC/Q0704”

Sr. No.	Area	Details
1	<b>Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “ISC/Q0704”.
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field
3	<b>Minimum Educational Qualifications</b>	Min. ITI Fitter pass and preferably CTI/ATI cleared/ Diploma Mechanical
4a	<b>Domain Certification</b>	Certified for Job Role: “Manual Packaging and Marking Operations” mapped to QP: “ISC/Q0704”. Minimum accepted score is 80%.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/1402”. Minimum accepted score is 80%.
5	<b>Experience</b>	Min. 5 years relevant industry experience and minimum 3 years’ experience as Trained or un trained for same Job Role/ Trade

### Annexure: Assessment Criteria

<b>Assessment Criteria</b>	
<b>Job Role</b>	<b>Manual Packaging and Marking Operation</b>
<b>Qualification Pack</b>	<b>ISC/Q0704</b>
<b>Sector Skill Council</b>	<b>Indian Iron &amp; Steel Sector Skill Council</b>

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. 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 centre (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on these 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.



Assessable Outcome	Assessment criteria	Marks Allocated			
		Total Marks 1000	Out Of	Theory	Practical
<b>ISC/N0708: Manually packing material and marking the identity of the material on the wrap</b>	PC1. Understand the assigned job from the supervisor and plan the job as per job card and sequence	<b>400</b>	21	20	1
	PC2. Identify & assess the materials that need to be packed; then arrange the raw materials for packing and final marking		29	10	19
	PC3. Pick up the right wrapping material suitable for the material to be packed.		20	5	15
	PC4. Safely handle the material to be packed & the packing material to be used		20	0	20
	PC5. Pack the material manually following the relevant SPI		100	20	80
	PC6. Understand the nature of the writing gadgets to be used and their compatibility with the surface which is to be marked		21	20	1
	PC7. Correctly read the right identification code/tag on the finished package		21	20	1
	PC8. Mark the packed material with the correct identification/code/ number using the right tools and gadgets		99	0	99
	PC9. Put right kind of tagging as required for different materials		29	0	29
	PC10. Inform supervisor on completion of the job		21	20	1
	PC11. Record the details in the log book		19	0	19
	<b>NOS Total</b>	<b>Total</b>	<b>400</b>	<b>115</b>	<b>285</b>
<b>ISC/N0709: Safely loading the packed and marked material onto a vehicle</b>	PC1 Put the right kind of wedge/dunnage / scotch block under the vehicle to prevent any sort of unwanted movement of the same during loading	<b>350</b>	20	0	20
	PC2. Ensure wagon floor is even and clean		10	0	10
	PC3. Use proper wooden saddles to load the coil onto them		20	0	20
	PC4. Decide which kind of cleat/ hook is to be welded onto the floor		21	20	1
	PC5. Weld the attachment onto the floor, following the SOP/SPI.		199	20	179
	PC6. Lash a suitable steel strap/ chain around the packed coil/load		1	0	1
	PC7. Ensure that the strap/ chain is tightly wound around and secured with the welded structure on the floor		79	0	79





Assessable Outcome	Assessment criteria	Marks Allocated			
		Total Marks 1000	Out Of	Theory	Practical
	<b>NOS Total</b>	<b>Total</b>	<b>350</b>	<b>40</b>	<b>310</b>
<b>ISC/N0008: Use basic health and safety practices at the workplace</b>	PC1. Use protective clothing/equipment for specific tasks and work conditions	<b>150</b>	10	5	5
	PC2. State the name and location of people responsible for health and safety in the workplace		5	0	5
	PC3. State the names and location of documents that refer to health and safety in the workplace		1	0	1
	PC4. Identify job-site hazardous work and state possible causes of risk or accident in the workplace		9	5	4
	PC5. Carry out safe working practices while dealing with hazards to ensure the safety of self and others state methods of accident prevention in the work environment of the job role		10	5	5
	PC6. State location of general health and safety equipment in the workplace		5	0	5
	PC7. Inspect for faults, set up and safely use steps and ladders in general use		5	0	5
	PC8. Work safely in and around trenches, elevated places and confined areas		5	0	5
	PC9. Lift heavy objects safely using correct procedures		5	0	5
	PC10. Apply good housekeeping practices at all times		1	0	1
	PC11. Identify common hazard signs displayed in various areas		6	5	1
	PC12. Retrieve and/or point out documents that refer to health and safety in the workplace		4	0	4
	PC13. Use the various appropriate fire extinguishers on different types of fires correctly		9	5	4
	PC14. Demonstrate rescue techniques applied during fire hazard		10	5	5
	PC15. Demonstrate good housekeeping in order to prevent fire hazards		1	0	1
	PC16. Demonstrate the correct use of a fire extinguisher		4	0	4
	PC17. Demonstrate how to free a person from electrocution		5	0	5
	PC18. Administer appropriate first aid to victims as required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc.		10	5	5



Assessable Outcome	Assessment criteria	Marks Allocated			
		Total Marks 1000	Out Of	Theory	Practical
	PC19. Demonstrate basic techniques of bandaging		5	0	5
	PC20. Respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments		10	5	5
	PC21. Perform and organize loss minimization or rescue activity during an accident in real or simulated environments		5	0	5
	PC22. Administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases		5	0	5
	PC23. Demonstrate the artificial respiration and the CPR Process		5	0	5
	PC24. Participate in emergency procedures		5	0	5
	PC25. Complete a written accident/incident report or dictate a report to another person, and send report to person responsible		9	5	4
	PC26. Demonstrate correct method to move injured people and others during an emergency		1	0	1
	<b>NOS Total</b>	<b>Total</b>	<b>150</b>	<b>45</b>	<b>105</b>
<b>ISC/N0009: Work effectively with others</b>	PC1. Accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required	<b>100</b>	10	5	5
	PC2. Accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt		10	5	5
	PC3. Provide information to others clearly, at a pace and in a manner that helps them to understand		10	0	10
	PC4. Display helpful behaviour by assisting others in performing tasks in a positive manner, where required and possible		10	5	5
	PC5. Consult with and assist others to maximize effectiveness and efficiency in carrying out tasks		10	5	5
	PC6. Display appropriate communication etiquette while working		10	0	10
	PC7. Display active listening skills while interacting with others at work		10	0	10



Assessable Outcome	Assessment criteria	Marks Allocated	
		Total Marks 1000	Out Of
	PC8. Use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism		10
	PC9. Demonstrate responsible and disciplined behaviours at the workplace		15
	PC10. Escalate grievances and problems to supervisor		5
	<b>NOS Total</b>	<b>Total</b>	<b>100</b>
	<b>Grand Total</b>	<b>1000</b>	<b>1000</b>
	<b>Percentage Weightage:</b>		<b>50%</b>
	<b>Minimum Pass% to qualify (aggregate):</b>		<b>60%</b>