

# Model Curriculum

## Material Inspector

**SECTOR:** Electronics  
**SUB-SECTOR:** Consumer Electronics & IT Hardware  
**OCCUPATION:** Incoming Quality  
**REF ID:** ELE/Q3401, Version1.0  
**NSQF LEVEL:** 4

  
Skill India  
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**Certificate**

**CURRICULUM COMPLIANCE TO  
QUALIFICATION PACK - NATIONAL  
OCCUPATIONAL STANDARDS**  
is hereby issued by the  
**ELECTRONIC SECTOR SKILLS COUNCIL OF INDIA**  
for the  
**MODEL CURRICULUM**  
Complying to National Occupational Standards of  
Job Role/ Qualification Pack: '**Material Inspector Version1.0**'  
QP No. '**ELE/Q3401 NSQF Level 4**'

Date of Issuance : August 15<sup>th</sup>, 2018  
Valid up to\* : August 15<sup>th</sup>, 2021  
\*Valid up to the next review date of the Qualification Pack

  
Authorised Signatory  
(Electronic Sector Skills Council of India)

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# Material Inspector

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Material Inspector”, in the “Electronics” Sector/Industry and aims at building the following key competencies amongst the learner.

<b>Program Name</b>	<b>Material Inspector</b>		
<b>Qualification Pack Name &amp; Reference ID</b>	ELE/Q3401 VERSION 1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	15/12/2018
<b>Prerequisites to Training</b>	Diploma		
<b>Training Outcomes</b>	<p><b>After completing this programme, the participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• Identify the roles and responsibilities of a material inspector</li> <li>• Perform supervision of unloading of material and verify the quality and quantity of material received</li> <li>• Record all documents and coordinate with various departments</li> <li>• Work efficiently in a team</li> <li>• Follow the standard safety procedures to maintain a safe work area</li> </ul>		

This course encompasses 02 out of 02 National Occupational Standards (NOS) of “Verification Engineer” Qualification Pack issued by “Electronics Sector Skills Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1.	<p><b>Role of a Material Inspector</b></p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 35:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> <li>List the role of a material inspector</li> <li>Identify the electrical and mechanical modules</li> <li>Identify the basic electronics of different components and reading their values such as resistor, capacitor etc</li> <li>Identify applicable sampling plan, safety regulations, energy regulation, ESD regulations etc</li> <li>List the prices of different product used in manufacturing process</li> <li>List the documents and procedures involved in inspection and handling</li> <li>List precautions to be taken while handling electrical and mechanical products</li> <li>Identify the various departments in the factory premises</li> </ul>	<p>Electronics Components: Resistor, Capacitor etc.</p> <p>Service Manual/ User Manuals</p>
2.	<p><b>Inspecting Incoming Material</b></p> <p>Theory Duration (hh:mm) 40:00</p> <p>Practical Duration (hh:mm) 70:00</p> <p>Corresponding NOS Code ELE/N3401</p>	<ul style="list-style-type: none"> <li>Perform supervision of consignment in terms of collecting purchase order, arranging documents, checking details etc</li> <li>Check and supervise unloading of material</li> <li>Implement accuracy and safety standards for unloading material to avoid misplacement of products</li> <li>Check by comparing purchase order with actual material with respect to count, specification etc</li> <li>Implement various tests such as humidity tests, endurance tests</li> </ul>	<p>Paper, Pencil/Pen</p> <p>Telephone line, Telephone set</p>

		<p>etc and record the same as per company standards.</p> <ul style="list-style-type: none"> <li>Identify faults in the specification and material and communicate the same to the vendor and reporting manager</li> <li>Implement coordination with quality departments to ensure on time reporting</li> <li>Prepare all required documents and supervise movement to quality department</li> <li>Implement coordination with quality team and material handing operator for movement of material to required location after receiving clearance from quality department</li> </ul>	
3.	<p><b>Interaction with Colleagues and Supervisors</b></p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 15:00</p> <p>Corresponding NOS Code ELE/N9901</p>	<ul style="list-style-type: none"> <li>Provide the Supervisor details about problems that need to be escalated or about issues that are hazardous</li> <li>Use proper interpersonal skills and etiquettes while interacting with colleagues</li> <li>Solve personal conflicts</li> <li>Identify the importance of effective communication</li> <li>Illustrate team building skills to work effectively in a team</li> <li>Demonstrate workplace etiquettes and assist colleagues</li> <li>Provide details of feedbacks received from the colleagues and customers to supervisors and implement these</li> </ul>	Projector, PPT
	<p>Total Duration 200:00</p> <p>Theory Duration 80:00</p> <p>Practical Duration 120:00</p>	<p>Unique Equipment Required:</p> <p>Service Manual/ User Manuals</p> <p>Telephone line</p> <p>Telephone set</p> <p>Projector, PPT</p>	

Grand Total Course Duration: **200 Hours 0 Minutes**

(This syllabus/ curriculum has been approved by *Electronics Sector Skill Council of India*)

## Trainer Prerequisites for Job role: “Material Inspector” mapped to Qualification Pack: “ELE/ Q3401” Version 1.0

Sr. No.	Area	Details
1	<b>Job Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “ELE/Q3401 version 1.0”
2	<b>Personal Attributes</b>	A Trainer should be free from socio-economic preferences and prejudice. He/ she should be safety conscious and proficient in handling and use security/ safety equipment. Besides being knowledgeable, he/ she should be energetic, motivating, innovative and good at communication. The trainer should be able to establish rapport with the trainees and employ innovative methods to impart instructions.
3	<b>Minimum Educational Qualifications</b>	10 <sup>th</sup> standard pass
4a	<b>Domain Certification</b>	Certified for Job Role: “Material Inspector” mapped to QP: “ELE/Q3401 version1.0”. Minimum accepted score =80%
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q0102”. Minimum accepted score =80%
5	<b>Experience</b>	Minimum 2-year (1 year for ITI holder) experience as Material Inspector or IQC (Incoming Quality Control) function.



### Assessment Criteria for “Material Inspector”

Job Role	Material Inspector
Qualification Pack	ELE/Q3401, Version1.0
Sector Skill Council	Electronics Sector Skills Council of India

#### 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. Each NOS will have assessed both for theoretical knowledge and practical
3. The assessment will be based on knowledge bank of questions created by the SSC.
4. Individual assessment agencies will create unique question papers for theory and skill practical part for each candidate at each examination/training center
5. To pass the Qualification Pack, every trainee should score a minimum of 70% 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.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Compulsory NOS			Marks Allocation		
<b>Total Marks: 200</b>					
Assessment Outcomes	Performance criteria	Total Marks	Out of	Theory	Skills Practical
ELE/N3401 Inspect incoming material	PC1. Collect the purchase order from procurement team	100	3	1	2
	PC2. Arrange for gate entry documents		3	1	2
	PC3. Once the consignment has arrived at the required location, collect the gate pass and check details visually		3	1	2
	PC4. Instruct and supervise material handling operators while unloading		3	1	2
	PC5. ensure that all the material has been unloaded and moved to the appropriate location		3	1	2
	PC6. accurately check and verify gate pass and in time		3	1	2
	PC7. achieve zero misplacement of products received by clearly communicating with material handling operators		3	1	2

PC8. drive handlers and transporters with polite behaviour and positive attitude	3	1	2
PC9. achieve 100% safety standards for unloading and placing the materials	3	1	2
PC10. achieve zero absenteeism and report to work on time	3	1	2
PC11. check on the purchase order, the number of components/modules ordered	4	2	2
PC12. count the number of products or lots received from the supplier, on sampling basis in some cases and 100% in others	4	2	2
PC13. match material specification against what is mentioned in the purchase order	4	2	2
PC14. check the specification of all the products received	4	2	2
PC15. verify that the specification matches the requirement as mentioned in the purchase order	4	2	2
PC16. lodge a complaint with the respective material vendor in case of any discrepancies	4	2	2
PC17. collect the purchase order well in time from the respective department in order to avoid last minute uncertainties	4	2	2
PC18. read values of components sourced and ensure that they are as per specification	4	2	2
PC19. carry out basic application tests, on/off cycling endurance tests, burn in tests, load test, humidity test, energy regulation test and safety test	4	2	2
PC20. carry out any other applicable routine reliability tests as per work instruction note	4	2	2
PC21. record all test results as per company policy	4	2	2
PC22. maintain 100% accuracy in counting the material and registering them	4	1	3
PC23. achieve 100% inspection of number of samples chosen for verification of specification or quantity in order to ensure accuracy	4	1	3
PC24. escalate any concerns to reporting manager quickly after identification	3	1	2

	PC25. coordinate with the quality department to ensure on time reporting		3	1	2
	PC26. enter in to the register or on computer, details of the consignment received		3	1	2
	PC27. supervise movement of material to the quality department		3	1	2
	PC28. receive clearance from the quality department		3	1	2
	PC29. coordinate with quality team and material handling operators to move the materials inspected to designated locations		3	1	2
			<b>100</b>	<b>40</b>	<b>60</b>
ELE/N9901 Interact with colleagues	PC1. understand work requirements, targets and incentives	100	7	4	3
	PC2. learn about new product models, their features and functions		7	4	3
	PC3. report problems identified in the field		7	4	3
	PC4. escalate customer concerns that cannot be handled on field		7	3	4
	PC5. resolve personnel issues		6	2	4
	PC6. receive feedback on work standards and customer satisfaction		6	2	4
	PC7. communicate any potential hazards at a particular location		6	3	3
	PC8. meet given targets		6	2	4
	PC9. deliver work of expected quality despite constraints		6	2	4
	PC10. Have feedback from a happy and satisfied customer		6	2	4
	PC11. resolve inter-personnel conflicts and achieve smooth workflow		6	2	4
	PC12. receive spares from tool room or stores		6	2	4
	PC13. deposit faulty modules and tools to stores		6	2	4
	PC14. pass on customer complaints to colleagues in a respective geographical area		6	2	4
	PC15. assist colleagues with resolving field problems		6	2	4

	PC16. clearly demarcate roles of each team member		6	2	4
			100	40	60
		<b>Total</b>	200	80	120