

CURRICULUM

FOR THE TRADE OF

Cold Chain Storage and Distribution

Executive

(Cold Chain Logistics)

UNDER

APPRENTICESHIP TRAINING SCHEME



GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP
DIRECTORATE GENERAL OF TRAINING

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1. ACKNOWLEDGEMENT

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2. BACKGROUND

2. 1. Apprenticeship Training Scheme under Apprentice Act 1961

The Apprentices Act, 1961 was enacted with the objective of regulating the programme of training of apprentices in the industry by utilizing the facilities available therein for imparting on-the-job training. The Act makes it obligatory for employers in specified industries to engage apprentices in designated trades to impart Apprenticeship Training on the job in industry to school leavers and person having National Trade Certificate (ITI pass-outs) issued by National Council for Vocational Training (NCVT) to develop skilled manpower for the industry. There are five categories of apprentices namely; **trade apprentice, optional trade apprentice, graduate, technician and technician (vocational) apprentices.**

Qualifications and period of apprenticeship training of trade apprentices and optional trade apprentices vary from trade to trade. The apprenticeship training consists of basic training followed by practical training. At the end of the training, the apprentices are required to appear in a trade test conducted by NCVT and those successful in the trade tests are awarded the National Apprenticeship Certificate.

The period of apprenticeship training for graduate (engineers), technician (diploma holders and technician (vocational) apprentices is one year. Certificates are awarded on completion of training by the Department of Education, Ministry of Human Resource Development.

2. 2. Changes in Industrial Scenario

Recently we have seen huge changes in the Indian industry. The Indian Industry registered an impressive growth during the last decade and half. The number of industries in India have increased manifold in the last fifteen years especially in services and manufacturing sectors. It has been realized that India would become a prosperous and a modern state by raising skill levels, including by engaging a larger proportion of apprentices, will be critical to success; as will stronger collaboration between industry and the trainees to ensure the supply of skilled workforce and drive development through employment. Various initiatives to build up an adequate infrastructure for rapid industrialization and improve the industrial scenario in India have been taken.

2. 3. Reformation

The Apprentices Act, 1961 has been amended and brought into effect from 22nd December, 2014 to make it more responsive to industry and youth. Key amendments are as given below:

- Prescription of number of apprentices to be engaged at establishment level instead of trade-wise.
- Establishment can also engage apprentices in optional trades which are not designated, with the discretion of entry level qualification and syllabus.
- Scope has been extended also to non-engineering occupations.
- Establishments have been permitted to outsource basic training in an institute of their choice.
- The burden of compliance on industry has been reduced significantly.

3. RATIONALE

This candidate trained in the job role will be employed in the operations department to perform the storage and distribution of goods. The person ensures storage parameters specific to the products and also ensure take care of the plant operating parameters in the event of external conditions and environmental changes.

1. The greater degree of relevance of the training with latest advancements of the industry will enhance the employability opportunities.
2. Products stored under refrigeration and equipment components should meet the quality requirements.
3. Able to complete the storage and distribution activities on time
4. Handle different types and categories of products for storage
5. Able to use the computer knowledge for electronic documentation where required
6. Exposure to legislative laws, organizational requirements and environment
7. Able to communicate and behave in a professional manner when dealing with customers, colleagues and supervisors
8. Knowledge of Risk and impact of not following defined procedures/work instructions and from improper product handling
9. Assess what is to be done to resolve in case of any issue

10. Able to understand clearly and gaining extensive knowledge of the company, services offered and related solutions to problems.
11. Exposure to Reporting and documentation.
12. Ability to understand and maintain health, safety and security standards during storage and distribution activities
13. Usage of appropriate tools and techniques
14. Knowledge on proper spacing for every product
15. Appropriate handling requirements for every product
16. Stacking knowledge of various products
17. Loading and unloading methods of the goods for storage and distribution
18. Maintain the area clean and avoid damages to the products
19. Characteristics of the products being handled
20. Quality control and assurance standards for every product
21. Safety precautions for product handling
22. Knowledge on appropriate material handling equipment (MHE) according to size and quantity of the goods
23. Noting quantity of goods transferred
24. Knowledge Measurement units of every goods

4. JOB ROLE

Brief description of Job role:

The process is about performing the storage and distribution of goods. The person ensures storage parameters specific to the products and also ensure take care of the plant operating parameters in the event of external conditions and environmental changes.

Storage and distribution activity has to ensure timely activity. The activity should be performed by wearing appropriate protective gears. Usage of necessary tools and equipment is essential. Post the activity, the area should be kept clean and safe. The job role is required to follow safety and hygiene procedures. The standard operating procedures are to be followed. The quality aspects should be met for products stored.

5. LEARNING OUTCOMES

A. GENERIC OUTCOME

1. Recognize & comply safe working practices, environment regulation and housekeeping.
2. Work in a team, understand and practice soft skills, technical English to communicate with required clarity.
3. Illustrate concept and principles of basic arithmetic calculation, algebraic, trigonometric, statistics and apply knowledge of specific area to perform practical operations which requires well developed skills.
4. Explain basic science in the field of study including basic electrical, and hydraulics & pneumatics.
5. Explain the knowledge of general concept, principles of productivity, quality tools, and labor welfare legislation and apply such in day to day work to improve productivity & quality.
6. Explain the general concept and process of energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.
7. Explain and display sensitivity towards personnel finance, entrepreneurship and manage/organize related task in day to day work for personal & societal growth.
8. Apply the general concept of basic computer, basic operating system and uses of internet services to take benefit of IT developments in the industry

B. SPECIFIC OUTCOME

- Explain how to perform storage and distribution activity in a cold storage
- Apply knowledge of safely performing the activity ensuring timeline and specifications
- Apply computer knowledge for electronic documentation of information if required
- Prioritize the schedule obtained, Plan and organize assigned work.
- Understand the technical specification, which helps during storage and distribution
- Exposure to legislative laws, organizational requirements, resources and environment
- Detect & resolve issues during storage and distribution activity
- Communicate with required clarity.
- Knowledge to Maintain appropriate temperature, humidity and refrigerant conditions during storage

6. GENERAL INFORMATION



1. Name of the Trade : **Cold Chain Storage & Distribution Executive (Cold Chain –Logistics)**
2. Duration of Apprenticeship Training : **15 Months**
 - (i) Basic Training : 03 Months
 - (ii) Practical Training : 12 Months
3. Entry Qualification : Passed 12th class examination under 10+2 system of education or its equivalent.
4. Selection of Apprentices : The apprentices will be selected as per the Apprentices Act amended time to time
5. Rebate : Trainee pass-outs from PMKVY or MES-SDI
or
Any central Government/state government approved scheme in course/trade/module relevant to the proposed optional trade.

Note: Industry may impart training as per above time schedule, however this is not fixed. The industry may adjust the duration of training considering the fact that all the components under the syllabus must be covered. However the flexibility should be given keeping in view that no safety aspect is compromised and duration of industry training to be remains as 1 year.

1. COURSE STRUCTURE

Training duration details: -

Time (in months)	1-3	4-15
Basic Training	Block– I	-----
Practical Training (On - job training)	----	Block – II

Components of Training	Duration of Training in Months 														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Basic Training Block - I															
Practical Training Block - II															

8. SYLLABUS

8.1 BASIC TRAINING (BLOCK – I)

GENERAL INFORMATION

1. Name of the Trade : **Cold Chain Storage & Distribution Executive (Cold Chain – Operations)**
2. Duration of Basic training : 03 months/500 hours
Breakup of Basic Training
 - a) Theory and Practical: 390 Hrs
 - b) Employability skills : 110 hrs.
3. Batch size : 20
4. Power Norms : 4 KW
5. Space Norms : 25 Sq. m
6. Instructor Qualification : Degree/Diploma in Mechanical Engineering.
from recognized university/Board with one/two-year post qualification experience respectively in relevant field.
7. Tools, Equipment's & Machinery required : - As per Annexure – I

BASIC TRAINING (BLOCK – I)

Trade: Cold Chain Storage & Distribution Executive (Cold Chain –Logistics)

8.1.1 DETAIL SYLLABUS OF PROFESSIONAL SKILLS & PROFESSIONAL KNOWLEDGE

Sl. No.	Professional Skills (Trade Practical) - 270 hrs	Professional Knowledge (Trade Theory) - 20 hrs
1.	<p>Safety & Precaution Explain different type of dangerous goods and associated risks and ways of handling</p> <p>Follow the Safety rules and Procedure</p> <p>Apply SOP and the handling procedure in case of miss-happenings</p> <p>Follow Company safety policy inside the company premises.</p> <p>Understand the consequences of wrong usage of PPE and use PPE properly. Follow OSHA.</p> <p>Implement 5S .</p> <p>Maintain Health, Safety and Security measures for carried out during operations</p> <p>Handle food items with Precautions</p>	<p>Safety & Precaution Different type of dangerous goods and associated risks and ways of handling</p> <p>Safety rules and Procedures SOP and the handling procedure in case of miss-happenings</p> <p>Company safety policy inside the company premises</p> <p>Importance of Proper usage of PPE and consequences of wrong usage Details OSHA and its application</p> <p>5S and its implementation and practice</p> <p>Maintain Health, Safety and Security measures for carried out during operations</p> <p>Precautions to be taken while handling food items</p>
2.	<p>Warehousing Watch the video of warehousing concept and operations Visit a warehouse, observe and understand Warehousing concept and operations. Carryout warehousing operations – 3PL, 4 PL etc.</p>	<p>Warehousing Introduction to Warehouse Basics, Types and concept of warehousing. Warehousing operations – 3PL, 4 PL, etc. Introduction to storage and distribution Uses and importance of storage and distribution</p>

3.	<p>Understanding cold chain Explain Basics of cold chain warehousing.</p> <p>Identify difference between a general warehouse and cold chain warehouse.</p> <p>Select Types of cold chain with respect to the requirement for different types of products.</p> <p>Watch Video of cold chain unit , its operation and follow.</p>	<p>Understanding cold chain Introduction to cold chain</p> <p>Cold Chain & Its Importance</p> <p>Difference between a general warehouse and cold chain warehouse</p> <p>Types of cold chain with respect to the requirement for different types of products – difference between cold chain warehousing for fruits, staples, liquids, etc.</p> <p>Places where cold chain exist – 3PL warehouse, Internal manufacturing setup, etc.</p> <p>Video of cold chain unit and its operation</p>
4.	<p>Understanding different equipment in warehousing environment</p> <p>Watch Video on operations, usage norms and limitations of different equipment</p> <p>Identify different types of trolleys, trucks, belts, roller conveyors, etc., based on their functions / application and select appropriate one for the need.</p> <p>Identify the equipment used for vehicle handling such as fork lifts etc., based on their functions / application and select appropriate one for the need.</p> <p>Select appropriate space for storage and carry out Stack alignment / positioning</p> <p>Select proper Palletizing for the stored goods</p> <p>Follow the Procedure for appropriate placement on racks and carry out the placement.</p>	<p>Understanding different equipment in warehousing environment</p> <p>Different types of trolleys, trucks, belts, roller conveyors, etc., their functions and uses</p> <p>Equipment used for vehicle handling such as fork lifts, their functions and uses</p> <p>Details of appropriate spacing and size for storage</p> <p>Stack alignment and positioning</p> <p>Palletizing and their requirements for the stored goods</p> <p>Procedure for appropriate placement on racks</p>
5.	<p>Pre-requisite to cold chain warehousing Understanding storage pre-requisites for cold chains</p> <p>Video of different aspects with</p>	<p>Pre-requisite to cold chain warehousing</p> <p>Concept of perishable and Non-perishable products.</p>

	<p>possible hazards and damages</p> <p>Identify perishable and Non-perishable products.</p> <p>Based on temperature, environmental requirements and shelf lives identify the products under cold storage</p> <p>Store the products based on their Technical requirements</p> <p>Store the goods based on their appropriate temperature, humidity and refrigerant conditions</p>	<p>Different types of products under cold storage and their temperature and environmental requirements as well as shelf lives</p> <p>Technical requirements for storage of the different products</p> <p>Understanding appropriate temperature, humidity and refrigerant conditions at which goods have to be stored</p>
6.	<p>Cold chain storage and material handling</p> <p>Video of Operating cold chain warehouse</p> <p>Video of Handling of different products for storage and distribution</p> <p>Site visit to cold chain to under the operations and activities</p> <p>Follow the Standard operating procedures</p> <p>Designate areas for stacking different types of products considering their temperature requirements</p> <p>Stack the products in pallets and racks</p> <p>Carry out the process of material handling so as to minimize damage and contamination</p> <p>Set the temperatures and check on a regular basis</p> <p>Check for contamination of products.</p> <p>Segregate and dispose off the contaminated products.</p> <p>Operate vapor detectors and alarms.</p> <p>Identify and detect areas of potential gas leaks within the cold storage</p>	<p>Cold chain storage and material handling</p> <p>Standard operating procedures</p> <p>How to designate areas for stacking different types of products considering their temperature requirements like – very low temperature for meat products, moderately low temperature for chocolates and fruits, relatively higher temperature for staples and bananas, etc.</p> <p>Procedure for stacking the products in pallets and racks.</p> <p>Explain process of material handling so as to minimize damage and contamination.</p> <p>Procedure for setting temperatures and checking on the same on a regular basis, Checking for contamination of products , segregating and disposing contaminated products.</p> <p>Procedure for Operating vapor detectors and alarms and Identifying /detecting areas of potential gas leaks within the cold storage</p>

7.	Cold chain distribution system Make a visit to cold chain distribution centre and follow the distribution system Carry out the distribution of product as per client/ warehouse orders Follow the steps, Identify the products and move based on shelf life and ageing. Follow the Procedure Maintain cleanliness and hygiene in loading and unloading bays Take necessary precautions while moving stock from racks to lading bays Update and confirm the temperature requirement of the loading bay and transport vehicle as per the product requirement Coordinate for damage free and contamination free loading and unloading activities	Cold chain distribution system Requirements for distribution and product movement from MIS and as per client/ warehouse orders Steps for Identifying products to be moved based on shelf life and ageing Procedure for Maintaining cleanliness and hygiene in loading and unloading bays Methods and precautions to be taken while moving stock from racks to lading bays Steps for Updating and confirming the temperature requirement of the loading bay and transport vehicle as per the product requirement Coordinating damage free and contamination free loading and unloading activities
8.	Reporting Generate daily report of stock movements Generate daily report of product ageing Generate daily report of product contamination and disposals. Carry out different types of reporting on paper and in MIS	Reporting Generating daily report of stock movements Generating daily report of product ageing Generating daily report of product contamination and disposals
9.	Revision & Internal assessment	Revision & Internal assessment

BASIC TRAINING (BLOCK – I)

8.1.2 EMPLOYABILITY SKILLS

GENERAL INFORMATION

- 1. Name of the Trade :** Cold Chain Storage & Distribution Executive
(Cold Chain –Logistics)
- 2. Name of the subject :** Employability Skills
- 3. Applicability :** ATS- Mandatory for fresher only
- 4. Hours of Instruction :** 110 Hrs.
- 5. Instructor Qualification :**
MBA/BBA with two years' experience or graduate in sociology/social welfare/economics with two years' experience and trained in Employability skill from DGT Institute.
And
Must have studied in English/Communication Skill and Basic Computer at 12th / diploma level
OR
Existing Social Study Instructor duly trained in Employability Skill from DGT Institute.

BASIC TRAINING (BLOCK – I)

8.1.2.1 DETAIL SYLLABUS OF EMPLOYABILITY SKILLS

Topic No.	Topic	Duration (in hours)
	English Literacy	15
1	Pronunciation : Accentuation (mode of pronunciation) on simple words, Diction (use of word and speech)	
2	Functional Grammar Transformation of sentences, Voice change, Change of tense, Spellings.	
3	Reading Reading and understanding simple sentences about self, work and environment	
4	Writing Construction of simple sentences Writing simple English	
5	Speaking / Spoken English Speaking with preparation on self, on family, on friends/ classmates, on know, picture reading gain confidence through role-playing and discussions on current happening job description, asking about someone's job habitual actions. Cardinal (fundamental) numbers ordinal numbers. Taking messages, passing messages on and filling in message forms Greeting and introductions office hospitality, Resumes or curriculum vita essential parts, letters of application reference to previous communication.	
	I.T. Literacy	15
1	Basics of Computer Introduction, Computer and its applications, Hardware and peripherals, Switching on-Starting and shutting down of computer.	
2	Computer Operating System Basics of Operating System, WINDOWS, The user interface of Windows OS, Create, Copy, Move and delete Files and Folders, Use of External memory like pen drive, CD, DVD etc., Use of Common applications.	
3	Word processing and Worksheet Basic operating of Word Processing, Creating, opening and closing Documents, use of shortcuts, Creating and Editing of Text, Formatting the Text, Insertion & creation of Tables. Printing document. Basics of Excel worksheet, understanding basic commands, creating simple worksheets, understanding sample worksheets, use of simple formulas and functions, Printing of simple excel sheets	

4.	Computer Networking and INTERNET Basic of computer Networks (using real life examples), Definitions of Local Area Network (LAN), Wide Area Network (WAN), Internet, Concept of Internet (Network of Networks), Meaning of World Wide Web (WWW), Web Browser, Web Site, Web page and Search Engines. Accessing the Internet using Web Browser, Downloading and Printing Web Pages, Opening an email account and use of email. Social media sites and its implication. Information Security and antivirus tools, Do's and Don'ts in Information Security, Awareness of IT - ACT, types of cyber-crimes.	
	Communication Skill	25
1	Introduction to Communication Skills Communication and its importance Principles of Effective communication Types of communication - verbal, non-verbal, written, email, talking on phone. Nonverbal communication -characteristics, components-Para-language Body - language Barriers to communication and dealing with barriers. Handling nervousness/ discomfort. Case study/Exercise	
2	Listening Skills Listening-hearing and listening, effective listening, barriers to effective listening guidelines for effective listening. Triple- A Listening - Attitude, Attention & Adjustment. Active Listening Skills.	
3	Motivational Training Characteristics Essential to Achieving Success The Power of Positive Attitude Self-awareness Importance of Commitment Ethics and Values Ways to Motivate Oneself Personal Goal setting and Employability Planning. Case study/Exercise	
4	Facing Interviews Manners, Etiquettes, Dress code for an interview Do's & Don'ts for an interview	
5	Behavioral Skills Organizational Behavior Problem Solving Confidence Building Attitude Decision making Case study/Exercise	

	Entrepreneurship skill	15
1	Concept of Entrepreneurship Entrepreneurship- Entrepreneurship - Enterprises:-Conceptual issue Entrepreneurship vs. Management, Entrepreneurial motivation. Performance & Record, Role & Function of entrepreneurs in relation to the enterprise & relation to the economy, Source of business ideas, Entrepreneurial opportunities, The process of setting up a business.	
2	Project Preparation & Marketing analysis Qualities of a good Entrepreneur, SWOT and Risk Analysis. Concept & application of Product Life Cycle (PLC), Sales & distribution Management. Different Between Small Scale & Large Scale Business, Market Survey, Method of marketing, Publicity and advertisement, Marketing Mix.	
3	Institutions Support Preparation of Project. Role of Various Schemes and Institutes for self-employment i.e. DIC, SIDA, SISI, NSIC, SIDO, Idea for financing/ non financing support agencies to familiarizes with the Policies /Programs& procedure & the available scheme.	
4	Investment Procurement Project formation, Feasibility, Legal formalities i.e., Shop Act, Estimation & Costing, Investment procedure - Loan procurement - Banking Processes.	
	Productivity	10
1	Productivity Definition, Necessity, Meaning of GDP.	
2	Affecting Factors Skills, Working Aids, Automation, Environment, Motivation How improves or slows down.	
3	Comparison with developed countries Comparative productivity in developed countries (viz. Germany, Japan and Australia) in selected industries e.g. Manufacturing, Steel, Mining, Construction etc. Living standards of those countries, wages.	
4	Personal Finance Management Banking processes, Handling ATM, KYC registration, safe cash handling, Personal risk and Insurance.	
	Occupational Safety, Health & Environment Education	15
1	Safety & Health Introduction to Occupational Safety and Health importance of safety and health at workplace.	
2	Occupational Hazards Basic Hazards, Chemical Hazards, Vibro-acoustic Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards. Occupational health, Occupational hygienic, Occupational Diseases/ Disorders & its prevention.	

3	Accident & safety Basic principles for protective equipment. Accident Prevention techniques - control of accidents and safety measures.	
4	First Aid Care of injured & Sick at the workplaces, First-Aid & Transportation of sick person	
5	Basic Provisions Idea of basic provision of safety, health, welfare under legislation of India.	
6	Ecosystem Introduction to Environment. Relationship between Society and Environment, Ecosystem and Factors causing imbalance.	
7	Pollution Pollution and pollutants including liquid, gaseous, solid and hazardous waste.	
8	Energy Conservation Conservation of Energy, re-use and recycle.	
9	Global warming Global warming, climate change and Ozone layer depletion.	
10	Ground Water Hydrological cycle, ground and surface water, Conservation and Harvesting of water	
11	Environment Right attitude towards environment, Maintenance of in -house environment	
	Labour Welfare Legislation	
1	Welfare Acts Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen's compensation Act.	5
	Quality Tools	10
1	Quality Consciousness : Meaning of quality, Quality Characteristic	
2	Quality Circles : Definition, Advantage of small group activity, objectives of quality Circle, Roles and function of Quality Circles in Organization, Operation of Quality circle. Approaches to starting Quality Circles, Steps for continuation Quality Circles.	
3	Quality Management System : Idea of ISO 9000 and BIS systems and its importance in maintaining qualities.	
4	House Keeping : Purpose of Housekeeping, Practice of good Housekeeping.	
5	Quality Tools Basic quality tools with a few examples	

8.2 PRACTICAL TRAINING (ON-JOB TRAINING)

GENERAL INFORMATION

Name of the Trade : **Cold Chain Storage and Distribution Executive
(Cold Chain -Logistics)**

Duration of On-Job Training : 12 months

Instructor Qualification :

- i) Degree/Diploma in Mechanical Engineering from recognized university/Board with one/two-year post qualification experience in the relevant field.

OR

- ii) LSC approved storage and distribution with three-year post qualification experience in the relevant field.

Infrastructure for On-Job Training: As per Annexure – II

8.2.1 BROAD SKILL COMPONENT TO BE COVERED DURING ON-JOB TRAINING

(DetailSyllabus for Practical Training / ON - JOB TRAINING)

Duration: (12 months)

- ❖ **Familiarization with the industry. Health, Safety & Environment:** Introduction to safety Equipment's and their uses. Demonstration of 5S Concept on shop floor. Use of Personal Protective Equipment's (PPE).
- ❖ Prepare different types of documentation as per industrial need using different methods of recording information.
- ❖ Develop good appearance and behavior, practice, tasks as per industry standard and express good communication skill.
- ❖ Prepare and maintain work area and maintain health and safety at the work place.
- ❖ Ensure the hygiene in the warehousing, loading bay and unloading bay
- ❖ Follow temperature requirements for different types of products
- ❖ Identify the products that can be stored together
- ❖ Observing the basic material handling precautions and methods in a cold chain
- ❖ Take additional precautions to ensure contamination free environment.
- ❖ Setting up temperature and maintaining the temperature.
- ❖ Identify basic issues of vapour discharge, etc.
- ❖ Explain the various activities in storage and distribution
- ❖ Follow hygiene and safety aspects
- ❖ Take care of modified atmosphere temperature maintenance
- ❖ Follow appropriate temperature, humidity and refrigerant conditions at which goods have to be stored
- ❖ Identify areas of potential gas leaks within the cold storage
- ❖ Operate vapour detectors and alarms
- ❖ Handle different types of equipment like trolleys, trucks, belts, roller conveyors, etc.
- ❖ Identify and select appropriate spacing and size for storage
- ❖ IdentifyPalletizing requirements for the stored goodsand appropriate placement on racks
- ❖ Follow Temperature conditions for every type of product
- ❖ Carry out Stack alignment and positioning

9. ASSESSMENT STANDARD

9.1 Assessment Guideline:

Appropriate arrangements should be made to ensure that there will be no artificial barriers to assessment. The nature of special needs should be taken into account while undertaking assessment. Due consideration to be given while assessing for team work, avoidance/reduction of scrape/wastage and disposal of scarp/wastage as per procedure, behavioral attitude and regularity in training.

The following marking pattern to be adopted while assessing:

- a)** Weight age in the range of 60-75% to be allotted during assessment under following performance level:

For this grade, the candidate with occasional guidance and showing due regard for safety procedures and practices, has produced work which demonstrates attainment of an acceptable standard of craftsmanship.

In this work there is evidence of:

- Good skill levels in the use of hand tools, machine tools and workshop equipment
- Many tolerances while undertaking different work are in line with those demanded by the component/job.
- A fairly good level of neatness and consistency in the finish
- Occasional support in completing the project/job.

- b)** Weight age in the range of above 75%- 90% to be allotted during assessment under following performance level:

For this grade, the candidate, with little guidance and showing due regard for safety procedures and practices, has produced work which demonstrates attainment of a reasonable standard of craftsmanship.

In this work there is evidence of:

- good skill levels in the use of hand tools, machine tools and workshop equipment
- The majority of tolerances while undertaking different work are in line with those demanded by the component/job.
- a good level of neatness and consistency in the finish
- little support in completing the project/job

- c)** Weightage in the range of above 90% to be allotted during assessment under following performance level:

For performance in this grade, the candidate, with minimal or no support in organization and execution and with due regard for safety procedures and practices, has produced work which demonstrates attainment of a high standard of craftsmanship.

In this work there is evidence of:

- High skill levels in the use of hand tools, machine tools and workshop equipment
- Tolerances while undertaking different work being substantially in line with those demanded by the component/job.
- A high level of neatness and consistency in the finish.
- Minimal or no support in completing the project

10. FURTHER LEARNING PATHWAYS

Employment opportunities:

On successful completion of this course, the candidates shall be gainfully employed in the following industries:

1. Warehouses / Stores / Distribution centers / Fulfillment Centre / Mother Hub
2. Courier consolidation Centers
3. Transportation Companies
4. Airports / Air Cargo Terminals / Air Freight Stations
5. CFS / ICDs' / Port Terminals
6. Manufacturing Plants (Automobile / FMCG / Hazardous Goods)

ANNEXURE – I

TOOLS & EQUIPMENTS FOR BASIC TRAINING

INFRASTRUCTURE FOR PROFESSIONAL SKILL & PROFESSIONAL KNOWLEDGE

TRADE: Cold Chain Storage and Distribution Executive (Cold Chain -Logistics)

APPRENTICES TOOL KIT: -

Sl. No.	Name of the items	Quantity (indicative)
1.	Safety Shoes	20 pairs
2.	Safety Helmet	20
3.	Gloves	20 pairs
4.	Reflector Jackets	20
5.	Ear Plugs	20 pairs
6.	Industrial Goggles	20
7.	SOP Charts	20
8.	Safety Norms Handbook	20
9.	Technical specification Sheet	1 x 5sets (1 each/ storage activity)
10.	Material Safety Data Sheet	20
11.	DO's and Don'ts Sheet	1 x 5 sets (1 each/ storage activity)

Note: In case of basic training the BTP may hire the Material Handling Equipment if required except if the BTP is the manufacturer of the equipment. Tools, equipment and machinery available in the industry may be used for imparting basic training if the BTP is setup by the Industry

INFRASTRUCTURE FOR ON-JOB TRAINING

**Trade : Cold Chain Storage and Distribution Executive
(Cold Chain -Logistics)**

Actual training will depend on the existing facilities available in the establishments. However, the industry should ensure that the broad skills defined against On-Job Training part (i.e. 12 months) are imparted. In case of any shortfall, the concerned industry may impart the training in cluster mode/ any other industry to cover up shortfall.

GUIDELINES FOR INSTRUCTORS AND PAPER SETTERS

1. Due care to be taken for proper & inclusive delivery among the batch. Some of the following method of delivery may be adopted:
 - A) LECTURE
 - B) LESSON
 - C) DEMONSTRATION
 - D) PRACTICE
 - E) GROUP DISCUSSION
 - F) DISCUSSION WITH PEER GROUP
 - G) PROJECT WORK
 - H) INDUSTRIAL VISIT
2. Maximum utilization of latest form of training viz., audio visual aids, integration of IT, etc. may be adopted.
3. The total hours to be devoted against each topic may be decided with due diligence to safety & with prioritizing transfer of required skills.

ANNEXURE - IV

List of Basic Training providers recommended by LSC		
S.No	Name of Basic Training Providers	Location
1	Allcargo Logistics Limited	Tamil Nadu/Maharashtra
2	Alliance Institute of Advanced Pharmaceutical and Health Sciences	Telangana/Andhra Pradesh
3	Artem institute of logistics and transports	Tamil Nadu
4	Confederation of indian industry(CII) Institute of Logistics	PAN India
5	Daksya Academy Pvt Ltd	PAN India
6	Darcl Parable	Haryana
7	De Unique Educational Society (Softdot Institute)	PAN India
8	Degain Group	Maharashtra
9	Express Industry Council of India	PAN India
10	Green Earth Logistics Pvt. Ltd.	Tamil Nadu
11	INNOVISION LIMITED	PAN India
12	JBS Academy Pvt Ltd.	Gujarat
13	Nidan Technologies Private Limited	Maharashtra/Madhya Pradesh
14	People XL(Jobs connect hr solutions Pvt. Ltd)	South India
15	Premier Center for Competency Training	Tamil Nadu
16	Safeducate Learning Pvt. Ltd.	PAN India
17	Shri Technologies	PAN India
18	ST.BRITTO'S COLLEGE	Tamil Nadu
19	SynchroServe Global Solutions Private Limited	Telangana/Andhra Pradesh
20	Telangana Jagruthi	Telangana
21	TVS Training & Services Private Limited	Tamil Nadu
22	UPDATER SERVICES PVT LTD	South India

ANNEXURE - V

List of Assessment Agency for basic training recommended by LSC		
SL.NO	Name of Assessment Agency	Location
1	Hemsen EXIM LLP	PAN India
2	Eduworld Consultants Pvt. Ltd,	
3	CII (Confederation of Indian Industry)	
4	Induslynk Training Services Private Limited (Mettl)	
5	Manipal City & Guilds Pvt Ltd	
6	GreenArrows Safety Management (P) Ltd	
7	I-Vintage solutions Pvt. Ltd.	
8	CoCubes Technologies Pvt Ltd	
9	Samhit Assessments & research foundation	
10	Formac Software Services	
11	Unison Academy	
12	Prima Competencies Pvt. Ltd	
13	Brisk Mind Pvt Ltd	
14	Edu Vantage Pvt. Ltd.	
15	Lead Assessment	
16	C & K Management Limited	
17	Krish Networks	
18	Society for education and Environmental training	
19	D'Pariksha	
20	Anagha Solutions	
21	Ashvi Consulting	
22	Shri Guru Hargovind Society	