

LEARNING OUTCOME BASED VOCATIONAL CURRICULUM

JOB ROLE: Land Transportation Associate

(QUALIFICATION PACK: Ref. Id. LSC/Q1001)

SECTOR: Logistics

Grade 9 and 10

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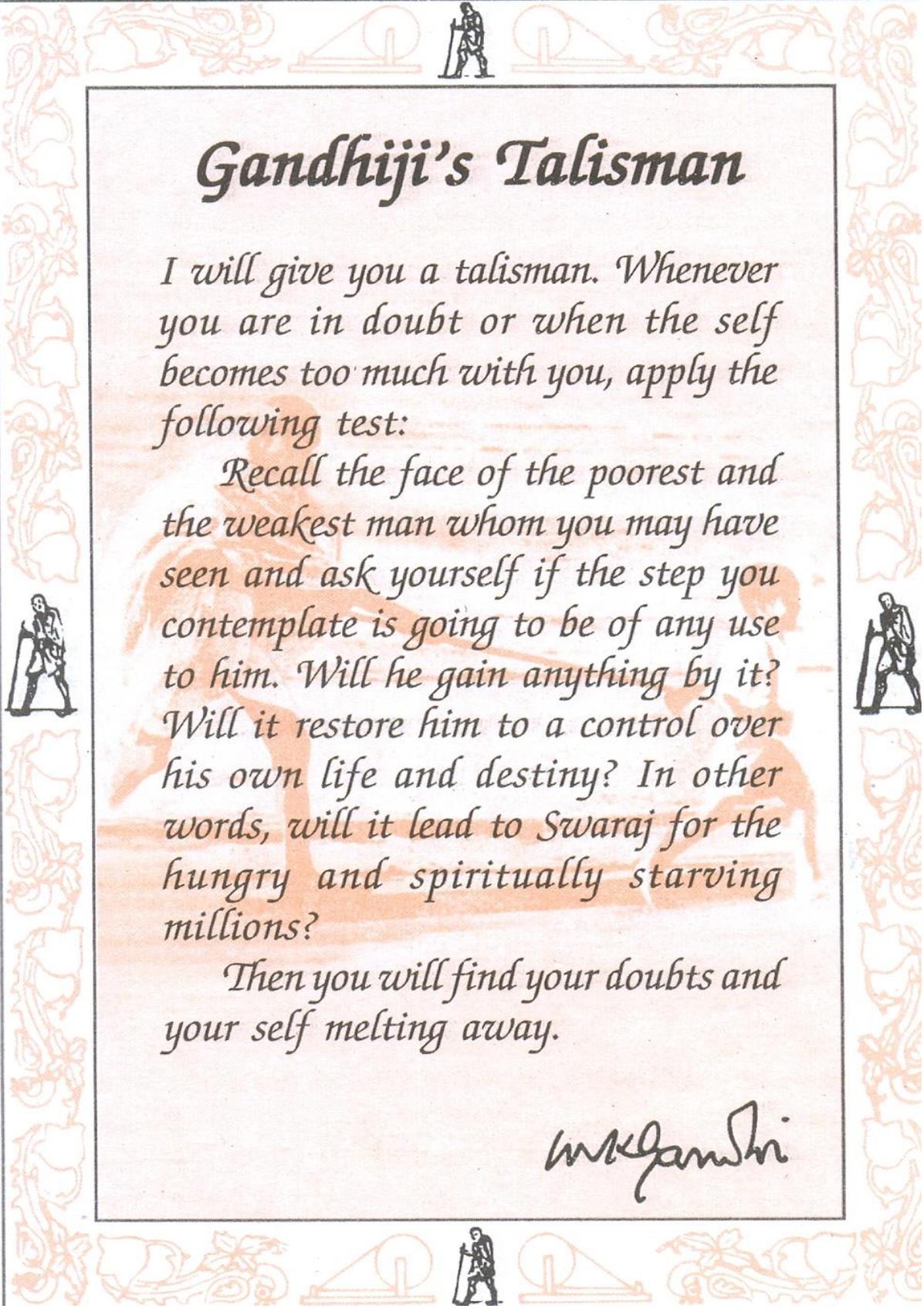


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PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION
(a constituent unit of NCERT, under MHRD, Government of India)

Shyamla Hills, Bhopal- 462 002, M.P., India

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Gandhiji's Talisman

I will give you a talisman. Whenever you are in doubt or when the self becomes too much with you, apply the following test:



Recall the face of the poorest and the weakest man whom you may have seen and ask yourself if the step you contemplate is going to be of any use to him. Will he gain anything by it? Will it restore him to a control over his own life and destiny? In other words, will it lead to Swaraj for the hungry and spiritually starving millions?

Then you will find your doubts and your self melting away.

M.K. Gandhi

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CURRICULUM**

Logistics-Land Transportation Associate

March,2023

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FOREWORD

The Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) a constituent of the National Council of Educational Research and Training (NCERT) is spearheading the efforts of developing learning outcome-based curricula and courseware aimed at integrating both vocational and general qualifications to open pathways of career progression for students. The curriculum has been developed for the vocational education program introduced under the Centrally Sponsored Scheme of *Samagra Shiksha* of the Ministry of Education (erstwhile, Ministry of Human Resource Development) and is aligned to the National Skills Qualifications Framework (NSQF). The curricula for vocational courses are being developed under the project approved by the Project Approval Board (PAB) of 'Samagra Shiksha' which is an overarching program for the school education sector extending from pre-school to Grade 12. The main purpose of the learning outcome-based curricula is to bring about improvement in the teaching-learning process and working competencies through learning outcomes embedded in the vocational subject.

It is a matter of great pleasure to introduce this learning outcome-based curriculum as part of the vocational training packages for the job role of **Land Transportation Associate**. The curriculum has been developed for the secondary students of Grade 9 and 10 and is aligned to the National Occupation Standards (NOSs) of a job role identified and approved under the National Skill Qualifications Framework (NSQF).

The curriculum aims to provide children with employability and vocational skills to support occupational mobility and lifelong learning. It will help students to acquire specific occupational skills that meet employers' immediate needs. The teaching process is to be performed through interactive sessions in classrooms, practical activities in laboratories and workshops, projects, field visits, and professional experiences.

The curriculum has been developed and reviewed by a group of experts and their contributions are greatly acknowledged. The utility of the curriculum will be adjudged by the qualitative improvement that it brings about in teaching-learning. The feedback and suggestions on the content by the teachers and other stakeholders will be of immense value to us in bringing about further improvement in this document.

Dinesh Prasad Saklani

Director

National Council of Education Research and Training

PREFACE

India today stands poised at a very exciting juncture in its saga. The potential for achieving inclusive growth is immense and the possibilities are equally exciting. The world is looking at us to deliver sustainable growth and progress. To meet the growing expectations, India will largely depend upon its young workforce. The much-discussed demographic dividend will bring sustaining benefits only if this young workforce is skilled and its potential is channelized in the right direction.

In order to fulfill the growing aspirations of our youth and the demand for a skilled human resource, the Ministry of Education, (MoE), Government of India introduced the revised Centrally Sponsored Scheme of Vocationalisation of School Education under *Samagra Shiksha* that aims to provide for the diversification of educational opportunities so as to enhance individual employability, reduce the mismatch between demand and supply of skilled manpower and provide an alternative for those pursuing higher education. For spearheading the scheme, the PSS Central Institute of Vocational Education (PSSCIVE) was entrusted with the responsibility to develop learning outcome-based curricula, student workbooks, teacher handbooks, and e-learning materials for job roles in various sectors, with growth potential for employment.

The PSSCIVE firmly believes that the vocationalisation of education in the nation needs to be established on a strong footing of philosophical, cultural, and sociological traditions and it should aptly address the needs and aspirations of the students besides meeting the skill demands of the industry. The curriculum, therefore, aims at developing the desired professional, managerial, and communication skills to fulfill the needs of society and the world of work. In order to honor the commitment to the nation, the PSSCIVE has initiated the work on developing learning outcome-based curricula with the involvement of faculty members and leading experts in respective fields. It is being done through the concerted efforts of leading academicians, professionals, policymakers, partner institutions, Vocational Education and Training experts, industry representatives, and teachers. The expert group through a series of consultations, working group meetings, and the use of reference materials develops the national curriculum.

We extend our gratitude to all the contributors for selflessly sharing their precious knowledge, acclaimed expertise, and valuable time and positively responding to our request for the development of the curriculum. We are grateful to MoE and NCERT for the financial support and cooperation in realizing the objective of providing learning outcome-based modular curricula and courseware to the States and other stakeholders under the PAB (Project Approval Board) approved project of *Samagra Shiksha of MoE*

Finally, for transforming the proposed curriculum design into a vibrant reality of implementation, all the institutions involved in the delivery system shall have to come together with a firm commitment and they should secure optimal community support. The success of this curriculum depends upon its effective implementation and it is expected that the managers of vocational education and training system, including subject teachers will make efforts to create better facilities, develop linkages with the world of work and foster a conducive environment as per the content of the curriculum document.

The PSSCIVE, Bhopal remains committed in bringing about reforms in the vocational education and training system through the learner-centric curricula and courseware. We hope that this document will prove useful in turning out more competent Indian workforce for the 21st century.

Deepak Paliwal

*Joint Director
PSS Central Institute of Vocational Education*

ACKNOWLEDGEMENTS

On behalf of the team at the PSS Central Institute of Vocational Education (PSSCIVE) we are grateful to the members of the Project Approval Board (PAB) of *Samagra Shiksha* and the officials of the Ministry of Education, Government of India for the financial support to the project for the development of curricula.

We are grateful to the Director of NCERT for his support and guidance. We also acknowledge the contributions of our colleagues at the Technical Support Group of MoE, and National Council for Vocational Education and Training (NCVET), the National Skill Development Corporation (NSDC), and Logistics Skill Council (LSC) for their academic support and cooperation in the development of Qualification file and curriculum.

We are thankful to the course coordinator Dr. Punnam Veeraiah Professor and Head of Department of Business and Commerce (DBC), Dr. Deeksha Chaurasia, Assistant Professor, Department of Business and Commerce (DBC) and the experts for their untiring efforts and contributions to the development of this learning outcome-based curriculum. The contribution made by Dr. Gayatri H, *Head -Skilling in Schools & Academia Linkages*, Logistics Sector Skill Council(LSC), in the development of the curriculum for domain and non-domain skills is duly acknowledged. The contributions made by Dr. Vinay Swarup Mehrotra, Professor and Head, Curriculum Development and Evaluation Centre (CDEC) in the development of the curriculum the employability skills are duly acknowledged.

We acknowledge the assistance provided by Sunita Koli, Computer Operator Grade III, Ms. Neha Kushwaha, DTP Operator (Contractual), and Harendra Rajput Dept. of Business and commerce, PSSCIVE in designing, typing and composing of the material.

PSSCIVE Team

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1. COURSE OVERVIEW

COURSE TITLE: Logistics– Land Transportation Associate

Transport plays vital components of the distribution logistic and have a significant role in the supply chain at national and international level. Transport has recorded an extensive growth over the years both in spread of network and in output of the system.

Road transport is growing in importance as compared to other means of transport as a result of the subsequent reasons. Construction price of roads is way simpler than other. Roads will be simply inbuilt steep slopes and traverse mountains just like the Himalaya. It is additionally more helpful than other transport since it connects remote villages to the cities further. Road transportation is much more flexible than the other means. Therefore, it's very clear why road transport in India is considered more useful than other transport.

Connecting clients and drivers of Transport Services are mostly made possible by technology. Additionally, there has been a noticeable rise in production. In addition, technology aids in lowering costs and mistakes in the supply chain. To acquire a competitive edge in the market for transport services, today's logistics businesses are using cutting-edge innovations, including fleet management, cloud-based computing, and shipment tracking technologies.

When offering Transport Services, complete visibility ensures that service providers know the shipment's status from start to finish. Total consignment visibility is feasible with the implementation of cutting-edge technology. Another fantastic instance is when businesses can monitor the efficiency of moving trucks thanks to GPS installation. A logistics and transportation service provider may track shipments in real-time in this fashion. In the event of difficulties during travel, businesses can also fix them or find alternatives.

Consignments or shipments may now be tracked in real-time thanks to Artificial Intelligence, machine learning, the Internet of things and data analytics. Providers of logistics services assist businesses in gaining access to milestone-based tracking through specific client portals. Businesses may track consignment information, including the set delivery date, as it moves from one hub to another. The key benefits of milestone-based monitoring in the transportation industry are improved supply chain control and firmer collaboration.

The quickest and most economical path for a journey is determined using sophisticated route management algorithms. In the long run, this optimization is advantageous for the Transport Services sector in terms of cost, labour, and time savings. Widespread digitization has made contactless logistics possible. Key documentation like truck receipts and proofs of delivery are now automatically generated. Virtual gasoline cards have been created, particularly for the transportation industry. As a result, financial transactions are now more transparent. The e-toll system has successfully eradicated cash-based transactions. Additionally, the widespread use of electronic wallets, UPI-based payments, and online banking in Transport Services has changed the game.

The location-based service is known as geo-fencing. It designates a certain region or establishes a fictitious border. Every time there is movement inside the geo-fence, this service notifies the logistics business. The notifications that have been received in the form of alerts are milestone-based. The geo-fence may contain several touchpoints, including driver residences, corporate headquarters, client warehouses, etc. The main purpose is to assist the business in tracking the precise movements of the vehicles used in the transportation services industry.

The client's office, warehouse, and the car may all connect online to a single database thanks to system integration. Real-time information interchange is made easier by it. Many systems make it simple to retrieve this data.

The transportation sector tried to be as inventive as possible to address the challenging scenario even during the second wave of COVID-19. For this, they combined drones with technology to improve back-end networks.

In the transport services sector, an electronic toll collection is viewed as a game-changer in the quick passage of consignments. RFID is used in the toll-collecting system (Radio Frequency Identification). The mechanism subtracts the toll at each entrance after reading a distance away. This technique reduces the need for gasoline and delays at toll gates. Optimizing trip length and the number of trips a freight truck makes would be a component of smart transport in the transportation services industry. Improving the infrastructure will also aid in reducing the emissions caused by freight transit.

In a smarter India, widespread technology use in all areas is inevitable. This industry is not an exception. Modern start-ups are supported by state-of-the-art technology. It supports agility for ongoing innovation and client-centricity. Higher efficiency at cheaper costs is the result. Companies that provide transportation services may seek new business prospects due to such growth. Customers gain a lot of advantages from the digitization of transportation services. Customers may, for instance, follow their shipments in real time. Errors are less likely when activities are tracked and streamlined like this. Imagine the following scenario: in the not-too-distant future, robotic procedures may completely automate the logistics and transportation services sector.

Transportation of goods are important in the manufacturing, marketing and storage of goods. Transportation deals with getting products and services from one location to another. Thus, Transportation is a combination of activities performed in accordance with other logistics activities. Transportation is an essential activity for many business enterprises. It provides or improve access to different locations for individuals and businesses. Thus, transport facilitates are wider range of social and economic interactions. Raw material also needs to be stored so as to ensure uninterrupted supplies during a production cycle.

Land Transportation Associates are also known as transportation assistants. Land Transportation Associates are responsible for moving people and goods from one place to another. They may also be responsible for loading and unloading of goods in the vehicles, ensuring that everything is properly secured before the trip begins. After completion of this course the learner would be able to work as Land Transportation Associate to look after paper work. He/she will be able to work well with his/her team and achieve joint goals and also able to prioritize and execute tasks within scheduled time limits. The individual should be able to maintain high concentration levels throughout his/her shift.

COURSE OUTCOME: On completion of the course, students should be able to:

- Apply effective oral and written communication skills to interact with people and customers;
- Identify the principal components of a computer system;
- Demonstrate the basic skills of using computer;
- Demonstrate self-management skills;
- Demonstrate the ability to provide a self-analysis in context of entrepreneurial skills and abilities;

- Demonstrate the knowledge of the importance of green skills in meeting the challenges of sustainable development and environment protection
- Execute consignment booking activities in the transportation
- Schedule vehicle for consignment movement based on type of consignment and delivery priority
- Perform route planning and resource scheduling activities
- Process gate entry and gate exit of vehicles at different transport destinations
- Schedule consignment pickup by deploying the right vehicle
- Track consignment movement to find out the report status
- Comply to work place integrity, ethical and regulatory practices.
- Manage workplace for safe and healthy work environment by following compliance to regulatory and safety norms.
- Inspect invoices for correct application of GST under transportation process

COURSE REQUIREMENTS: The learner should have the basic knowledge of Transport and Logistics.

COURSE LEVEL: This is an intermediate level course. On completion of this course, a student can take up diploma or degree level course.

COURSE DURATION: 400 hrs

Grade 9 : 200 hrs
Grade 10: 200 hrs

Total : 400 hrs

2. SCHEME OF UNITS

This course is a planned sequence of instructions consisting of Units meant for developing employability and vocational competencies of students of Grade 9 and 10 opting for vocational subject along with general education subjects. The unit-wise distribution of hours and marks for Grade 9 is as follows:

The unit-wise distribution of hours and marks for Grade 9 is as follows:

GRADE 9			
Units		No. of Hours for Theory and Practical 200	Max. Marks for Theory and Practical 100
Part A	Employability Skills		
	Unit 1: Communication Skills -I	20	10
	Unit 2: Self-management Skills -I	10	
	Unit 3: Information and Communication Technology Skills - I	20	
	Unit 4: Entrepreneurial Skills - I	15	
	Unit 5: Green Skills - I	10	
		75	10
Part B	Vocational Skills		
	Unit 1: Introduction to Land Transportation	10	30

	Unit 2: Consignment Booking	25	
	Unit 3: Consignment Processing for Transportation	25	
	Unit 4: Route Planning and Vendor Coordination	20	
	Unit 5: Gate Operations in Transportation	15	
		95	30
Part C	Practical Work		
	Practical Examination	06	15
	Written Test	01	10
	Viva Voce	03	10
		10	35
Part D	Project Work/Field Visit		
	Practical File/Student Portfolio	10	10
	Viva Voce	05	05
		15	15
Part E	Continuous and Comprehensive Evaluation (CCE)		
		05	10
	Total	200	100

The unit-wise distribution of hours and marks for Grade 10 is as follows:

GRADE 10			
Units		No. of Hours for Theory and Practical 200	Max. Marks for Theory and Practical 100
Part A	Employability Skills		
	Unit 1: Communication Skills - II	20	10
	Unit 2: Self-management Skills - II	10	
	Unit 3: Information and Communication Technology Skills - II	20	
	Unit 4: Entrepreneurial Skills - II	15	
	Unit 5: Green Skills - II	10	
		75	10
Part B	Vocational Skills		
	Unit 1: Consignment Pickup and Tracking in Transportation	20	30
	Unit 2: Verify Goods and Services Tax Application in Transportation	20	
	Unit 3: Consignment Consolidation for Transportation	20	
	Unit 4: Integrity and Ethics for Transportation	20	
	Unit 5: Health, Safety and Security Norms	15	
		95	30
Part C	Practical Work		
	Practical Examination	06	15
	Written Test	01	10
	Viva Voce	03	10
		10	35

Part D	Project Work/Field Visit		
	Practical File/Student Portfolio	10	10
	Viva Voce	05	05
		15	15
Part E	Continuous and Comprehensive Evaluation (CCE)		
		05	10
	Total	200	100

3. TEACHING/TRAINING ACTIVITIES

The teaching and training activities have to be conducted in classroom, laboratory/ workshops and field visits. Students should be taken to field visits for interaction with experts and to expose them to the various tools, equipment, materials, procedures and operations in the workplace. Special emphasis should be laid on the occupational safety, health and hygiene during the training and field visits.

CLASSROOM ACTIVITIES

Classroom activities are an integral part of this course and interactive lecture sessions, followed by discussions should be conducted by trained vocational teachers. Vocational teachers should make effective use of a variety of instructional or teaching aids, such as audio-video materials, colour slides, charts, diagrams, models, exhibits, hand-outs, online teaching materials, etc. to transmit knowledge and impart training to the students.

PRACTICAL WORK IN LABORATORY/WORKSHOP

Practical work may include but not limited to hands-on-training, simulated training, role play, case-based studies, exercises, etc. Equipment and supplies should be provided to enhance hands-on learning experience of students. Only trained personnel should teach specialized techniques. A training plan that reflects tools, equipment, materials, skills and activities to be performed by the students should be submitted by the vocational teacher to the Head of the Institution.

FIELD VISITS/ EDUCATIONAL TOUR

In field visits, children will go outside the classroom to obtain specific information from experts or to make observations of the activities. A checklist of observations to be made by the students during the field visits should be developed by the Vocational Teachers for systematic collection of information by the students on the various aspects. Principals and Teachers should identify the different opportunities for field visits within a short distance from the school and make necessary arrangements for the visits. At least three field visits should be conducted in a year.

4. ASSESSMENT AND CERTIFICATION

Upon successful completion of the course by the candidate, the Central/ State Examination Board for Secondary Education and the respective Sector Skill Council will certify the competencies.

The National Skills Qualifications Framework (NSQF) is based on outcomes referenced to the National Occupation Standards (NOSs), rather than inputs. The NSQF level descriptors, which are the learning outcomes for each level, include the process, professional knowledge, professional skills, core skills and responsibility. The assessment is to be undertaken to verify that individuals

have the knowledge and skills needed to perform a particular job and that the learning programme undertaken has delivered education at a given standard. It should be closely linked to certification so that the individual and the employer could come to know the competencies acquired through the vocational subject or course. The assessment should be reliable, valid, flexible, convenient, cost effective and above all it should be fair and transparent. Standardized assessment tools should be used for assessment of knowledge of students. Necessary arrangements should be made for using technology in assessment of students.

KNOWLEDGE ASSESSMENT (THEORY)

Knowledge Assessment should include two components: one comprising of internal assessment and second an external examination, including theory examination to be conducted by the Board. The assessment tools shall contain components for testing the knowledge and application of knowledge. The knowledge test can be objective paper-based test or short structured questions based on the content of the curriculum.

WRITTEN TEST

It allows candidates to demonstrate that they have the knowledge and understanding of a given topic. Theory question paper for the vocational subject should be prepared by the subject experts comprising group of experts of academicians, experts from existing vocational subject experts/teachers, subject experts from university/colleges or industry. The respective Sector Skill Council should be consulted by the Central/State Board for preparing the panel of experts for question paper setting and conducting the examinations.

The blue print for the question paper may be as follows:

Duration: 3 hrs

Max. Mark: 30

Sl.No.	Typology of Question	No. of Questions			Marks
		Very Short Answer (1 mark)	Short Answer (2 Marks)	Long Answer (3 Marks)	
1.	Remembering – (Knowledge based simple recall questions, to know specific facts, terms, concepts, principles, or theories; identify, define or recite, information)	2	1	2	10
2.	Understanding – (Comprehension – to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase, or interpret information)	1	2	2	11
3.	Application – (Use abstract information in concrete situation, to apply knowledge to new situations: Use given content to interpret a situation, provide an example, or solve a problem)	0	1	1	05
4.	High Order Thinking Skills – (Analysis & Synthesis – Classify, compare, contrast, or differentiate between different	0	1	0	02

	pieces of information; Organize and/ or integrate unique pieces of information from a variety of sources)				
5.	Evaluation – (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)	0	1	0	02
	Total	3x1=3	6x2=12	5x3=15	30 (14 Questions)

SKILL ASSESSMENT (PRACTICAL)

Assessment of skills by the students should be done by the assessors/examiners on the basis of practical demonstration of skills by the candidate, using a competency checklist. The competency checklist should be developed as per the National Occupation Standards (NOSs) given in the Qualification Pack for the Job Role to bring about necessary consistency in the quality of assessment across different sectors and Institutions. The student has to demonstrate competency against the performance criteria defined in the National Occupation Standards and the assessment will indicate that they are 'competent', or are 'not yet competent'. The assessors assessing the skills of the students should possess a current experience in the industry and should have undergone an effective training in assessment principles and practices. The Sector Skill Councils should ensure that the assessors are provided with the training on the assessment of competencies.

Practical examination allows candidates to demonstrate that they have the knowledge and understanding of performing a task. This will include hands-on practical exam and viva voce. For practical, there should be a team of two evaluators – the subject teacher and the expert from the relevant industry certified by the Board or concerned Sector Skill Council. The same team of examiners will conduct the viva voce.

Project Work (individual or group project) is a great way to assess the practical skills on a certain time period or timeline. Project work should be given on the basis of the capability of the individual to perform the tasks or activities involved in the project. Projects should be discussed in the class and the teacher should periodically monitor the progress of the project and provide feedback for improvement and innovation. Field visits should be organised as part of the project work. Field visits can be followed by a small-group work/project work. When the class returns from the field visit, each group might be asked to use the information that they have gathered to prepare presentations or reports of their observations. Project work should be assessed on the basis of practical file or student portfolio.

Student Portfolio is a compilation of documents that supports the candidate's claim of competence. Documents may include reports, articles, photos of products prepared by students in relation to the unit of competency.

Viva voce allows candidates to demonstrate communication skills and content knowledge. Audio or video recording can be done at the time of viva voce. The number of external examiners would be decided as per the existing norms of the Board and these norms should be suitably adopted/adapted as per the specific requirements of the vocational subject. Viva voce should also be conducted to obtain feedback on the student's experiences and learning during the project work/field visits.

5. UNIT CONTENTS

GRADE 9

Part A: Employability Skills

S. No.	Units	Duration (hrs)
1.	Communication Skills – I	20
2.	Self-management Skills – I	10
3.	Information and Communication Technology Skills-I	20
4.	Entrepreneurship Skills – I	15
5.	Green Skills – I	10
	Total	75

UNIT 1: COMMUNICATION SKILLS – I			
Learning Outcomes	Theory (08 hrs)	Practical (12 hrs)	Duration (20 hrs)
1. Demonstrate the knowledge of importance, elements and perspectives in communication	1. Introduction to communication process 2. Importance of communication 3. Elements of communication 4. Perspectives in communication 5. Effective communication	1. Role play on the communication process 2. Group discussion on the importance of communication and factors affecting perspectives in communication 3. Charts preparation on elements of communication 4. Asking students to write statements exemplify the use of the 7Cs (i.e. Clear, Concise, Concrete, Correct, Coherent, Courteous and Complete) for effective communication	02

<p>2. Demonstrate the knowledge of verbal communication</p>	<p>1. Verbal communication 2. Types of verbal communication 3. Advantages and disadvantages of verbal communication 4. Public speaking</p>	<p>1. Role play of a phone conversation 2. Chart preparation on types of verbal communication 3. Group discussion on advantages and disadvantages of verbal communication 4. Delivering a speech and practicing public speaking by using 3P's</p>	<p>02</p>
<p>3. Demonstrate the knowledge of non-verbal communication</p>	<p>1. Non-verbal communication 2. Importance of non-verbal communication 3. Types of non-verbal communication 4. Visual communication</p>	<p>1. Role play on non-verbal communication 2. Group discussion and demonstration of Do's and Don'ts to avoid body language mistakes 3. Group discussion on three methods of communication</p>	<p>02</p>
<p>4. Demonstrate the knowledge of basic writing skills</p>	<p>1. Writing skills: Parts of speech 2. Using capitals 3. Punctuation 4. Basic parts of speech</p>	<p>1. Reading paragraphs and sentences and identifying parts of speech 2. Constructing and writing sentences by using parts of speech 3. Identifying nouns by guessing the name, place, animal, and thing</p>	<p>02</p>
<p>5. Describe the parts and types of sentences</p>	<p>1. Writing skills: Sentences 2. Parts of a sentence 3. Types of objects 4. Types of sentences – Active and Passive 5. Types of sentences, according to their</p>	<p>1. Framing and writing sentences using direct and indirect objects 2. Writing a paragraph using active and passive</p>	<p>02</p>

	<p>purpose</p> <p>6. Paragraphs</p>	<p>voice</p> <p>3. Writing different types of sentences (i.e., declarative, exclamatory, interrogative and imperative)</p>	
<p>6. Demonstrate the knowledge of pronunciation basics</p>	<p>1. Pronunciation Basics</p> <p>2. Speaking correctly</p> <p>3. Phonetics</p> <p>4. Types of sounds</p>	<p>1. Pronouncing words and identifying vowels, diphthongs and consonants</p> <p>2. Practicing the pronunciation of words</p>	<p>02</p>
<p>7. Demonstrate how to greet and introduce self</p>	<p>1. Greetings and Introductions</p> <p>2. Greetings</p> <p>3. Types of greetings</p> <p>4. Introducing yourself and others</p>	<p>1. Role-play on Formal and informal greetings</p> <p>2. Role-play on introducing someone</p> <p>3. Practice and discussion on how to greet different people.</p>	<p>02</p>
<p>8. Answer questions that others ask about you</p>	<p>1. Talking about self</p> <p>2. Filling a form</p>	<p>1. Practicing introducing yourself and</p> <p>2. Practicing filling of forms</p> <p>3. Role-play on Self Introduction</p>	<p>02</p>
<p>9. Asking questions according to a situation</p>	<p>1. Asking questions</p> <p>2. Need for asking questions</p> <p>3. Method for asking questions</p>	<p>1. Framing and writing questions (using Who, Where, When, What, Why and How)</p> <p>2. Framing and writing questions (based on purpose of the question)</p> <p>3. Discussing and guessing the personality using framed questions</p>	<p>02</p>

10. Use the correct question words to ask open-ended and close-ended questions	<ol style="list-style-type: none"> Asking questions Types of questions Framing questions 	<ol style="list-style-type: none"> Framing and writing open-ended and close-ended questions. Group practice on framing questions Identifying open-ended and closed-ended questions. 	02
Total			20

UNIT 2: SELF-MANAGEMENT SKILLS – I

Learning Outcome	Theory (07 hrs)	Practical (03 hrs)	Duration (10 hrs)
1. Describe the meaning and importance of self-management	<ol style="list-style-type: none"> Introduction to self-management and its components Self-awareness Self-confidence Self-motivation Positive thinking Self-control Problem solving Personal hygiene and grooming Team work Time management Goal setting 	<ol style="list-style-type: none"> Group discussion on self-management skills Performing activities to know how much aware are you about yourself. Chart preparation on components of self-management 	01
2. Identifying strength and weakness analysis	<ol style="list-style-type: none"> Identifying strength and weakness Knowing yourself Strength and Weakness analysis Difference between interests and abilities 	<ol style="list-style-type: none"> Group discussion on aim and goal in life Perform a strength and weakness analysis Group discussion on interests and abilities 	01
3. Build self-confidence	<ol style="list-style-type: none"> Self-confidence Qualities of self-confident people Building self-confidence 	<ol style="list-style-type: none"> Role play on building self-confidence Performing activities on building confidence through 	02

		positive words	
4. Building the concept on positive thinking	<ol style="list-style-type: none"> 1. Positive thinking 2. Positive thinking and its importance 3. How to keep your thinking positive? 	<ol style="list-style-type: none"> 1. Story-telling 2. Role-play on following the class rules 3. Practicing saying positive words 4. Making a list of steps involved in self-reflection) on how you will follow positive attitude practices 5. Home activity on helping others, community service and social work 	02
5. Describe the concept and aspects of personal hygiene	<ol style="list-style-type: none"> 1. Personal hygiene 2. Three steps of personal hygiene <ul style="list-style-type: none"> • Care • Wash • Avoid 3. Essential steps of handwashing 	<ol style="list-style-type: none"> 1. Role-play on following personal hygiene steps 2. Discussion and follow up on personal hygiene practices 	02
6. Follow the guidelines for dressing and personal grooming	<ol style="list-style-type: none"> 1. Grooming 2. Grooming and its importance 3. Guidelines for dressing and grooming – clothes, hair, face 	<ol style="list-style-type: none"> 1. Role play on dressing and grooming standards 2. Self-reflection on dressing and grooming well 	02
Total			10

UNIT 3: INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS – I			
Learning Outcome	Theory (06 hrs)	Practical (14 hrs)	Duration (20 hrs)
1. Explain the role of Information and Communication Technology (ICT) in day-to-day life and the workplace	<ol style="list-style-type: none"> 1. Introduction to Information and Communication Technology (ICT) 2. ICT at workplace 3. ICT at home 	<ol style="list-style-type: none"> 1. Group discussion on past, present, and future use of ICT 2. Preparations of posters on applications of ICT 	02
2. Differentiate between the ICT tools and use of mobile apps	<ol style="list-style-type: none"> 1. ICT tools smartphones and tablets I 2. Smartphones 3. Tablets 4. TV and Radio 5. Application or apps 	<ol style="list-style-type: none"> 1. Performing activities to get familiar with mobile devices 	02
3. Differentiate between smartphones and tablets	<ol style="list-style-type: none"> 1. ICT tools -smartphone and tablets II 2. Mobile device layout 3. Basic features of a mobile device 4. Home screen of mobile device 5. Basic gestures used 	<ol style="list-style-type: none"> 1. Performing activities to get familiar with the mobile device – use and applications of mobile devices 	02
4. Describe the parts of computer and the computer peripherals	<ol style="list-style-type: none"> 1. Parts of a computer and peripherals 2. Parts of a computer 3. Input devices 4. Output devices 5. Peripherals devices and their functions 6. Central Processing Unit (CPU) 7. Understanding Random Access Memory (RAM) and Read Only Memory (ROM) 8. Motherboard 9. Ports and connections 	<ol style="list-style-type: none"> 1. Chart preparation on components of a computer 2. Group activity on connecting devices to a computer 	02
5. Demonstrate basic computer operations	<ol style="list-style-type: none"> 1. Basic computer operations 2. Computer hardware and software 3. Starting a computer 	<ol style="list-style-type: none"> 1. Group activity on use of computer 2. Group practice on using the 	02

	<ol style="list-style-type: none"> 4. Log in and log out 5. Shutting down computer 6. Using the keyboard 7. Using a mouse 	keyboard	
6. Perform basic file computer operations	<ol style="list-style-type: none"> 1. Performing Basic file operations 2. Need to perform basic file operations. 3. Files and folders -creating a file and using text editor Ubuntu 	1. Group practice on creating a file.	02
7. Demonstrate the knowledge of internet and networking	<ol style="list-style-type: none"> 1. Communication and Networking -Basics of Internet 2. Use of the Internet 3. Connecting to the Internet <ul style="list-style-type: none"> • Types of connection • Bandwidth • Internet browser 	1. Group discussion on the uses of the internet	02
8. Perform internet browsing	<ol style="list-style-type: none"> 1. Communication and Networking – Internet Browsing 2. World Wide Web 3. Web page 4. Web browsers 	1. Group practice on web browsing	02
9. Apply the knowledge of communication networking	<ol style="list-style-type: none"> 1. Communication and Networking – Introductions to E-Mail 2. How does the E-mail work? 3. Email Id or address 4. Advantages of E-mail 	1. Group discussion on using E-mail and its advantages	01
10. Create an Email account	<ol style="list-style-type: none"> 1. Communication and Networking – Creating an E-mail account 2. Creating an E-mail account 3. Steps to open an E-mail account on Gmail 	1. Group practice on creating and operating an e-mail account	01
11. Write an Email	<ol style="list-style-type: none"> 1. Communication and Networking – Writing an E-mail 2. Writing an E-mail 3. Attaching a file to an E-mail 4. Managing folders 	1. Group practice on writing an e-mail with attachments	01

12. Reply an Email	<ol style="list-style-type: none"> 1. Communication and Networking – Receiving and Replying to an E-mail 2. Receiving Email 3. Replying to an Email 4. Forwarding Email 5. Deleting Email 	<ol style="list-style-type: none"> 1. Group practice on receiving and replying to an e-mail. 	01
Total			20

UNIT 4: ENTREPRENEURSHIP SKILLS – I

Learning Outcome	Theory (06 hrs)	Practical (09 hrs)	Duration (15 hrs)
1. Describe the concept of Entrepreneurship skills	<ol style="list-style-type: none"> 1. What is Entrepreneurship? 2. Entrepreneurship 3. Enterprise 	<ol style="list-style-type: none"> 1. Group activity on guessing the Entrepreneur 	04
2. Describe the role of entrepreneurship	<ol style="list-style-type: none"> 1. Role of Entrepreneurship 2. Economic development 3. Social development 4. Improved standard of living 5. Optimal use of resources 6. More benefits at lower prices - products and services at competitive prices 	<ol style="list-style-type: none"> 1. Group discussion on "A world without Entrepreneurs" 2. Role-play on roles of entrepreneurship 	03
3. Describe the qualities of a successful entrepreneur	<ol style="list-style-type: none"> 1. Qualities of a successful entrepreneur 2. Patience 3. Positivity 4. Hardworking 5. Confidence 6. Open to trial and error 7. Creativity and innovation 	<ol style="list-style-type: none"> 1. Role-play on appearing for an interview 2. Group activity on interactions with entrepreneurs 	02
4. State the characteristics of entrepreneurship	<ol style="list-style-type: none"> 1. Distinguishing characteristics of entrepreneurship and wage employment 2. Characteristics of entrepreneurship 3. Wage employment 4. Benefits of 	<ol style="list-style-type: none"> 1. Group activity on identifying characteristics of enterprise 2. Discussion on advantages of entrepreneurship over wage 	03

	entrepreneurship	employment	
5. Identify the type of business activity	<ol style="list-style-type: none"> Types of business activities Product business Service business Hybrid business 	1. Group activity on identifying different types of products and services	01
6. Differentiate between the product, service, and hybrid businesses	<ol style="list-style-type: none"> Product, Service, and Hybrid Businesses Types of product-based business Manufacturing businesses Trade businesses 	1. Poster making on business activities around us	01
7. Describe the entrepreneurship development process	<ol style="list-style-type: none"> Entrepreneurship Development Process Steps of starting a business <ul style="list-style-type: none"> Idea generation Getting money and material Understanding customer needs Improving product/service 	1. Group activity on Make-and-Sell business	01
Total			15

UNIT 5: GREEN SKILLS – I

Learning Outcome	Theory (07 hrs)	Practical (03 hrs)	Duration (10 hrs)
1. Demonstrate the knowledge of society and environment	<ol style="list-style-type: none"> Society and Environment Natural resources Renewable and Non-renewable resources Types of pollutions Climate change Harmful radiation Natural disaster Saving the environment: What can you do? Reduce, reuse and recycle Actions for saving the environment 	<ol style="list-style-type: none"> Group activity on listing the factors influencing the environment Group activity on listing the steps one can take to save the environment 	05
2. Describe the meaning and importance of conserving	<ol style="list-style-type: none"> Conserving natural resources Soil conservation Water conservation 	1. Group discussion on various ways of conserving natural resources	02

natural resources	<ol style="list-style-type: none"> 4. Energy conservation 5. Food conservation 6. Forest conservation 		
3. Describe the meaning and scope of sustainable development and green economy	<ol style="list-style-type: none"> 1. Sustainable Development and Green Economy 2. Sustainable Development 3. Sustainable Development 4. Goals (SDGs) 5. Green growth 6. Green economy 7. Components of green economy 8. Skill development for the green economy 9. Green skills 10. Green jobs 11. Green projects 	<ol style="list-style-type: none"> 1. Group discussion on importance of green skills 2. Poster making on importance of green economy 	03
Total			10

GRADE 9

Part B: Vocational Skills

S. No.	Units	Duration (Hrs)
1.	Unit 1: Introduction to Land Transportation	10
2.	Unit 2: Consignment Booking for Transportation	25
3.	Unit 3: Consignment Processing for Transportation	25
4.	Unit 4: Route Planning and Vendor Coordination	20
5.	Unit 5: Gate Operations in Transportation	15
	Total	95

Unit 1: INTRODUCTION TO LAND TRANSPORTATION			
Learning Outcome	Theory (05hrs)	Practical (05hrs)	Duration (10 Hrs)
1. Classify the components of supply chain and logistics sector	<ol style="list-style-type: none"> 1. Introduction to logistics and supply chain 2. Functions of logistics 3. Importance of logistics 4. Subsectors in logistics 5. Concept of supply chain 6. Functions of supply chain 7. Importance of supply chain 8. Components of supply chain 	<ol style="list-style-type: none"> 1. Prepare a chart showing the basic functions and requirements of supply chain and subsectors in logistics. 2. Perform role-play on Warehouse Management 3. Prepare report on E-Commerce Logistics. 	2
2. Demonstrate various activities in land transportation	<ol style="list-style-type: none"> 1. Meaning of land transportation 2. Activities performed in various segments of the transportation 3. Activities performed in various segments of the transportation 4. Duties of transportation associate 5. Responsibilities of transportation associate 	<ol style="list-style-type: none"> 1. Perform Role Play on Route Planning 2. Prepare report on Vehicle Inspection and Maintenance of vehicle 3. Perform Role Play on Safety and Compliance in transportation. 	2
3. Explain duties and responsibilities of land transportation associate (LTA)	<ol style="list-style-type: none"> 1. Importance of material handling equipment in land transportation 2. Function of material handling equipment in land transportation 3. Types of equipment used in land transportation 4. Operational mechanism of material handling equipment in land transportation 	<ol style="list-style-type: none"> 1. Prepare equipment Matching Game. 2. Perform Role-Play on types of equipment. 3. Demonstration of safety of Equipment 4. Prepare report on Equipment Selection for material handling 	2

4. Describe the various MHEs and equipment used in land transportation (LT)	<ol style="list-style-type: none"> Essential documents required in land transportation Procedure for arranging documents for transportation 	<ol style="list-style-type: none"> Prepare sheet on Document Scavenger Hunt. Role-Play on Documents required by specific people. Prepare Document Organisation Game. Prepare Presentation on Document for transportation Perform Role-Play on Document Compliance. 	4
Total			10

Unit 2: CONSIGNMENT BOOKING FOR TRANSPORTATION

Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Duration (25hrs)
1. Collect order details and the corresponding documentation for order booking	<ol style="list-style-type: none"> Sales order process Important things to be kept in mind in order confirmation email Documents required for order booking Difficulties in booking customer orders Use of computers for electronic documentation & maintain customer account Transport the goods using company's fleet 	<ol style="list-style-type: none"> Role-Play on Understanding the Sales Order Process Prepare Crafting Effective Order Confirmation Emails Prepare Exploring Transportation Documentation Perform role-play on Overcoming Challenges in Customer Order Booking Embracing Technology for Efficient Business Processes 	7
2. Identify the type of vehicles required for transportation products	<ol style="list-style-type: none"> Meaning of Vehicles for Transportation Types of vehicles Factors for smooth movement of vehicles on road Nature of goods which are loading 	<ol style="list-style-type: none"> Perform Vehicle Selection Simulation Demonstrate Loading and Unloading of goods Prepare Virtual Tour of a Transportation Hub FTL vs. LTL Decision-making Game 	6

	<p>in transportation</p> <ol style="list-style-type: none"> Space management in the vehicles Facilities in vehicles for loading various types of goods Loading of goods (FTL, LTL) 	<ol style="list-style-type: none"> Perform role-play on Space Management. 	
<ol style="list-style-type: none"> Estimating the cost of transportation by interfacing with transportation agencies 	<ol style="list-style-type: none"> Components/ Types of transport Cost Factors Influencing Transportation Cost Transportation agency Negotiation with the customer Compare the rates with different transport companies Advance payment mechanism Key benefits of advance payment mechanisms 	<ol style="list-style-type: none"> Perform Transportation Cost Calculation Exercise Perform Transportation Agency Simulation Perform Role-Play on Negotiation. Prepare Transport Company Comparison Project Perform Advance Payment Simulation 	5
<ol style="list-style-type: none"> Verify the regulatory compliance of the vehicle to the transportation requirements 	<ol style="list-style-type: none"> Meaning of regulatory compliance of vehicles in transportation Freight Transport Industry Modes of Freight Transportation Key Players in the Freight Transportation Industry Challenges in the Freight Transportation Industry Contingency Planning in Transportation 	<ol style="list-style-type: none"> Perform Booking System Simulation Perform Panel discussion on Freight Transport Prepare report on Contingency Plan Perform Geography and Transportation Mapping Demonstrate the duty of Driver in Transportation. 	7

	<p>7. Importance of Contingency Planning in Transportation</p> <p>8. Different Geography and Distances</p> <p>9. Essential requirements for drivers in Logistic Transportation</p> <p>10. Importance of Staying in Connection with the Driver</p>		
Total			25

Unit 3: CONSIGNMENT PROCESSING FOR TRANSPORTATION

Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Duration (25hrs)
1. Arrange the mandatory documentation in LT	<p>1. Meaning and procedure of Transportation</p> <p>2. How the Consignment Process Works?</p> <p>3. Steps in Consignment Processing</p> <p>4. Mandatory Documents of Consignment Processing</p> <p>5. Vehicle Regulatory Requirements in Land Transportation</p>	<p>1. Prepare a role play on Consignment</p> <p>2. Prepare a Documentation Masterclass</p> <p>3. Prepare Regulatory Requirements Research Project</p> <p>4. Prepare Case Study Analysis on Consignment Processing</p> <p>5. Prepare quiz on Interactive Land Transportation Regulations</p>	6
2. Managing changes in volume, packaging, destination and other elements during the course of transportation	<p>1. Meaning of Lorry Receipt</p> <p>2. Functions of Lorry Receipt</p> <p>3. Importance of Transit Insurance Form</p> <p>4. Consignment Agreement Sheet</p>	<p>1. Demonstrate a role play on Lorry Receipt</p> <p>2. Prepare Consignment Agreement Analysis</p> <p>3. Prepare case study on Insurance Decision Making</p> <p>4. Prepare quiz on</p>	6

		<p>Consignment Documentation</p> <p>5. Prepare Consignment Agreement Negotiation</p>	
<p>3. Record the details in (enterprise resource planning) ERP for tracking of consignment and vehicle</p>	<p>1. Meaning of Goods and services tax (GST) and permits for dispatching vehicles</p> <p>2. Transporter road permit papers</p> <p>3. Importance of Transporter Road Permits Papers</p> <p>4. Advance payment to transporter in land transportation</p> <p>5. Reasons for Making Advance Payments in Land Transportation:</p>	<p>1. Demonstrate the concept of GST in Land Transportation</p> <p>2. Prepare GST Invoice Creation</p> <p>3. Perform Role-Play on GST Compliance Check</p> <p>4. International Land Transportation Process</p> <p>5. Prepare GST Quiz</p>	7
<p>4. Record the delivery of goods and acknowledgement of receipt</p>	<p>1. Meaning of Tracking</p> <p>2. Update Information on Vehicle Movement</p> <p>3. Delivery of Good and Close the Order</p>	<p>1. Prepare Real-Time Tracking Challenge</p> <p>2. Prepare Vehicle Movement Simulation</p> <p>3. Prepare Invoice Creation Challenge</p> <p>4. Perform Role-Play on Delivery Confirmation</p> <p>5. Demonstrate Transportation Documentation Audit</p>	6
Total			25

Unit 4: ROUTE PLANNING AND VENDOR COORDINATION

Learning Outcome	Theory (8 Hrs)	Practical (12 Hrs)	Duration (20 Hrs)
1. Describe the details of transporter	<ol style="list-style-type: none"> 1. Meaning of transporters and laws in land Transportation 2. Types of transporters 3. Terminology in route planning 4. State laws for land transportation 	<ol style="list-style-type: none"> 1. Prepare a chart on federal and state laws pertaining to transportation and types of transporters. 2. Visit a Transporter Office to understand the terminology used in Land Transportation. 	5
2. Design the route planning through software	<ol style="list-style-type: none"> 1. Meaning of route planning and collection of data 2. Importance of route planning 3. Essentials in route planning 4. Route planning with respect to routes and network: 5. Transport decisions 6. Types of cargo arrangements 7. Communication in route planning 8. Alternate route for contingency/emergency 	<ol style="list-style-type: none"> 1. Visit a Transporter Office to understand the data entry and calculations in route optimization software. 2. Visit a Transporter Office to understand the route planning process and planning of alternate route plan in case of emergency like inclement weather, natural calamities, etc. 3. Role plays to learn communication with Vendors and Dealers. 	5
3. Identify alternate routes for times of emergency	<ol style="list-style-type: none"> 1. Coordination with internal departments 2. Coordination for consignment pick/delivery and necessary arrangements 3. Coordination for vehicle condition 4. Coordination with transportation supervisor 	<ol style="list-style-type: none"> 1. Field Visit to a Transporter Office to understand making necessary arrangements for consignment pickup/delivery. 2. Role plays to demonstrate how coordination with internal departments regarding the route plan for consignment schedule is done. 3. Discussion on checking condition of vehicles. 	5

<p>4. Demonstrate the route plan, schedule and necessary requirements to all stakeholders</p>	<ol style="list-style-type: none"> 1. Definition of Technical knowledge in route planning and vendor coordination 2. Use of Computer and Equipment in Route Planning 3. System and equipment used in route mapping are 4. Geographical spread of state and cities 5. Type of goods in land transportation 6. Route optimization software 	<ol style="list-style-type: none"> 1. Prepare a chart showing Geographical spread of state and cities. 2. Model making and Demonstration use of computer and equipment in route planning. 	<p>5</p>
Total			20

Unit 5: GATE OPERATIONS IN TRANSPORTATION

Learning Outcome	Theory (5 hrs)	Practical (10hrs)	Duration (15Hrs)
<p>1. Prepare schedule for loading and unloading of goods</p>	<ol style="list-style-type: none"> 1. Meaning of Gate operations 2. Enterprise Resource Planning/Transport Management System (ERP/ TMS) 3. Benefits of Enterprise Resource Planning/ Transport Management System 4. Issue of gate entry/exit pass 5. Use of Enterprise Resource Planning/ Transport Management System 6. to generate entry or exit pass 7. Enterprise Resource Planning/ Transport Management System 8. software products available in India 	<ol style="list-style-type: none"> 1. Perform Simulation of Gate Entry/Exit Process 2. Data Processing Exercise 3. ERP/ TMS Software Exploration and Comparison 	<p>4</p>

<p>2. Inspect vehicle details and driver details for compliance to regulatory and consignment requirements</p>	<ol style="list-style-type: none"> 1. Plan for Loading or Unloading 2. Goods dispatch process 3. Strategies for optimising the goods dispatch process 4. Freight forwarding company 	<ol style="list-style-type: none"> 1. Perform Unloading and Loading Simulation 2. Prepare presentation on Dispatch Process Optimization 3. Freight Forwarding Company Exploration 	<p style="text-align: center;">4</p>
<p>3. Apply necessary precautions for hazardous goods transportation</p>	<ol style="list-style-type: none"> 1. Transport of hazardous goods 2. Precautions for transporting of hazardous goods 3. Documents required to transport of hazardous goods 	<ol style="list-style-type: none"> 1. Prepare chart on Hazardous Goods with its Classification 2. Perform role-play on Emergency Response Planning 3. Prepare Vehicle Inspection Checklist 4. Perform Documentation Exercise 5. Perform role play on Route Planning and Clearance Approval 	<p style="text-align: center;">3</p>
<p>4. Describe the customs verification process and legal clearance</p>	<ol style="list-style-type: none"> 1. Meaning of custom duty and clearance 2. Customs clearance procedure 3. Import Customs Clearance Procedure 4. Export Customs Clearance 5. Delivery of Goods 	<ol style="list-style-type: none"> 1. Perform Customs Duty Calculation. 2. Document Preparation for Import 3. Demonstrate the documents and determine Export Duty Analysis 4. Perform Role Play on Customs Clearance 	<p style="text-align: center;">4</p>
<p style="text-align: center;">Total</p>			<p style="text-align: center;">15</p>

GRADE 10**Part A - Employability Skills**

S. No.	Units	Duration (hrs)
1.	Communication Skills – II	20
2.	Self-management Skills – II	10
3.	Information and Communication Technology Skills – II	20
4.	Entrepreneurial Skills – II	15
5.	Green Skills – II	10
	Total	75

UNIT 1: COMMUNICATION SKILLS – II			
Learning Outcome	Theory (12 hrs)	Practical (08 hrs)	Duration (20 hrs)
1. Demonstrate the knowledge of various methods of communication	1. Methods of communication 2. Communication process and elements	1. Role-play on communication process 2. Group discussion on the effects of elements of communication cycle.	05
2. Describe the types of verbal communication	1. Verbal communication 2. Types of verbal communication 3. Advantages and disadvantages of Verbal communication 4. Mastering Verbal communication	1. Role-play of a telephonic conversation 2. Chart preparation on types of verbal communication 3. Group discussion on the advantages and disadvantages of verbal communication 4. Group activity on delivering a speech and practicing public speaking.	02
3. Demonstrate the knowledge of non-verbal	1. Non-verbal communication 2. Importance of Non-	1. Role play on non-verbal communication	

communication	<p>verbal communication</p> <p>3. Types of non-verbal communication</p> <p>4. Visual communication</p>	<p>2. Group discussion and practice on how to avoid body language mistakes</p> <p>3. Group discussion on three methods of communication</p>	02
4. Describe the communication cycle and importance of feedback	<p>1. Communication cycle and importance of feedback</p> <p>2. Feedback</p> <p>3. Types of feedback</p> <p>4. Importance of feedback</p>	<p>1. Role play on providing feedback</p> <p>2. Group activity on constructive feedback</p>	02
5. Identify the barriers to effective communication	<p>1. Barriers to Effective communication</p> <p>2. Effective communication</p> <p>3. Barriers to effective communication</p> <ul style="list-style-type: none"> • Physical barriers • Linguistic barrier • Interpersonal barriers • Organizational barriers • Culture barriers <p>4. Ways to overcome barriers to effective communication</p>	<p>1. Role play on barriers to effective communication</p> <p>2. Group activity on overcoming barriers to effective communication</p> <p>3. Chart preparation on barriers to effective communication</p>	04
6. Demonstrate the knowledge of parts of speech	<p>1. Writing skills – Parts of speech</p> <p>2. Capitalization</p> <p>3. Punctuations</p> <p>4. Basics of parts of speech</p> <p>5. Supporting parts of speech</p> <ul style="list-style-type: none"> • Article • Conjunctions • Prepositions • Interjections 	<p>1. Reading paragraph and sentences and identifying parts of speech</p> <p>2. Group activity on sentence construction</p> <p>3. Identifying nouns by guessing the name, place, animal, or thing</p>	03
7. Write sentences	<p>1. Writing Skills - Sentences</p> <p>2. Parts of sentence</p> <p>3. Types of objects</p> <p>4. Types of sentences</p>	<p>1. Making sentences using direct and indirect objects</p> <p>2. Writing a paragraph using</p>	

	<ul style="list-style-type: none"> • Active • Passive 5. Paragraphs	active and passive voice 3. Framing different types of sentences (i.e., declarative, exclamatory, interrogative and imperative)	02
Total			20

UNIT 2: SELF-MANAGEMENT SKILLS – II			
Learning Outcome	Theory (05 hrs)	Practical (05 hrs)	Duration (10 hrs)
1. Apply stress management techniques	1. Stress management 2. Stress and Stress management techniques 3. Management technique 4. Ability to work independently 5. Emotional intelligence	1. Role Play on avoiding stressful situation 2. Activity on listing stressful situations and discussing the stress management techniques like yoga, deep breathing exercises etc.	02
2. Identify strengths and weaknesses of self	1. Self-Awareness – Strength and Weakness Analysis 2. Knowing yourself 3. Strength and weakness analysis 4. Techniques for identifying strengths and weaknesses 5. Difference between interests and abilities	1. Group discussion on aim and goal in life 2. Perform a strength and weakness analysis 3. Group discussion on interests and abilities	02
3. Demonstrate the knowledge of self-motivation	1. Self-Motivation 2. Types of motivation 3. Qualities of self-motivated people 4. Building self-motivation	1. Group discussion on staying motivated 2. Activity on listing the ways to motivate oneself	02

4. Set SMART goals	<ol style="list-style-type: none"> 1. Self-Regulation – Goal Setting 2. Goals and Setting SMART goals 3. How to set goals <ul style="list-style-type: none"> • Specific • Measurable • Achievable • Realistic • Time bound 	<ol style="list-style-type: none"> 1. Group activity on setting SMART goals 2. Writing long- term and short-term goals 3. Activity on listing the ways to surely set SMART goals 	02
5. Demonstrate the knowledge of time management	<ol style="list-style-type: none"> 1. Self-Regulation – Time Management 2. Time management and its importance 3. Example and non-example of time management 4. Four steps for effective time management <ul style="list-style-type: none"> • Organise • Prioritise • Control • Track 5. Tips for practicing the four steps of effective time management 	<ol style="list-style-type: none"> 1. Preparing a list of activities to practice time management 2. Discussion on how to manage time to reach school on time 	02
Total			10

UNIT 3: INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS – II

Learning Outcome	Theory (08 hrs)	Practical (12 hrs)	Duration (20 hrs)
1. Perform basic computer operations	<ol style="list-style-type: none"> 1. Basics computer operations 2. Computer hardware and software 3. Starting a computer 4. Shutting down a computer 5. Using keyboard 6. Using a mouse <ul style="list-style-type: none"> • Roll over or hover • Point and click 	<ol style="list-style-type: none"> 1. Demonstration on use of computers 2. Group activity on using the keyboard 	12

	<ul style="list-style-type: none"> • Drag and drop • Double click 		
2. Apply basic file operations	<ol style="list-style-type: none"> 1. Performing basic file operations 2. Basic File Operations 3. Files and folders <ul style="list-style-type: none"> • Creating a file • Creating a folder 	1. Practice of creating a folder	02
3. Demonstrate computer care and maintenance	<ol style="list-style-type: none"> 1. Computer care and Maintenance 2. Importance of care and maintenance of computers 3. Basic tips for taking care of devices <ul style="list-style-type: none"> • Cleaning computer devices • Preparing maintenance schedule for computers • Taking backup data • Scanning and cleaning viruses • Removing SPAM files 	1. Group activity on preparing a chart on care and maintenance of computer	03
4. Describe the importance of maintaining computer security and privacy	<ol style="list-style-type: none"> 1. Computer security and privacy 2. Computer security deals with protecting computer <ul style="list-style-type: none"> • Reasons for security breach • Threats to computer • Protecting your data 	1. Group activity on preparing an infographic chart on computer security and privacy	03
Total			20

UNIT 4: ENTREPRENEURIAL SKILLS – II

Learning Outcome	Theory (06 hrs)	Practical (09 hrs)	Duration (15 hrs)
1. Describe the meaning of entrepreneurship	<ol style="list-style-type: none"> 1. Entrepreneurship and society 2. Activities of entrepreneurs: <ul style="list-style-type: none"> • Fulfil customer needs • Use local materials 	1. Group work on finding the problems in school campus and turning	05

	<ul style="list-style-type: none"> • Help society • Create job • Share wealth • Lower price product 	<p>them into business opportunities</p>	
2. Identify the qualities and functions of an entrepreneur	<ol style="list-style-type: none"> 1. Qualities and functions of an entrepreneur 2. Qualities of an entrepreneur 	<ol style="list-style-type: none"> 1. Activity on self-assessment of entrepreneurial qualities 2. Brainstorming on solving a problem in their area 3. Taking an interview of an entrepreneur 	03
3. Describe the myths and realities about entrepreneurship	<ol style="list-style-type: none"> 1. Misconceptions and myths about entrepreneurship 	<ol style="list-style-type: none"> 1. Group activity on identifying everyday heroes 2. Activity on interviewing the entrepreneurs 3. Group activity on making items and selling to someone 	04
4. Describe entrepreneurship as a career option	<ol style="list-style-type: none"> 1. Entrepreneurship as a career option 2. Meaning of career <ul style="list-style-type: none"> • Ways of earning a living • Self-employment 3. Wage employment 4. Entrepreneur career process <ul style="list-style-type: none"> • Enter • Survive • Grow 	<ol style="list-style-type: none"> 1. Brainstorming on entrepreneurship as a life option 2. Group discussion on the power of entrepreneurship 	03
Total			15

UNIT 5: GREEN SKILLS – II			
Learning Outcome	Theory (07 hrs)	Practical (03 hrs)	Duration (10 hrs)
1. Demonstrate the knowledge of green skills	1. Sustainable Development 2. Importance of sustainable development 3. Problems related to sustainable development 4. Sustainable development Goals 5. Sustainable development initiatives 6. Sustainable process	1. Group activity on creating garden in the school or planting tree saplings 2. Group discussion on "How to prevent wastage"	05
2. Describe the role of self in sustainable development	1. Our role in sustainable development 2. Our role towards Sustainable Development <ul style="list-style-type: none"> • Quality education • Clean water and sanitation • Affordable and clean energy • Decent work and economic growth • Reducing inequalities • Creating sustainable cities and communities • Responsible consumers and producers • Protect life below water • Protect life on land 	1. Group discussion on conservation and protection of environment 2. Group activity on organizing an art project using waste	05
Total			10

GRADE 10

Part B–Vocational Skills

S. No.	Units	Duration(Hrs)
1.	Unit 1: Consignment Pickup and Tracking in Transportation	20
2.	Unit 2: Goods and Services Tax Application in Transportation	20
3.	Unit 3: Consignment Consolidation for Transportation	20
4.	Unit 4: Integrity and Ethics for Transportation	20

5.	Unit 5: Health, Safety and Security Norms	15
	Total	95

Unit1: CONSIGNMENT PICKUP AND TRACKING IN TRANSPORTATION			
Learning Outcome	Theory (05 hrs)	Practical (15 hrs)	Duration (20Hrs)
1. Schedule consignment pickup by coordinating with transport companies and customers	<ol style="list-style-type: none"> 1. Definition of consignment pickup and tracking system 2. Consignment pickup process 3. Tracking in transportation 	<ol style="list-style-type: none"> 1. Visit a transport hub and identify the functions of a consignor and prepare a report. 2. List out the process of consignment. 3. Describe and discuss essentials required for consignor shipment business hub. 	2
2. Plan alternate vehicle in coordination with Executive in-case of exigencies	<ol style="list-style-type: none"> 1. Meaning of Land Transportation. 2. Types of requirements 3. Alternate vehicle 4. Identification of alternate vehicle 5. Consignment documentation to alternate vehicle 6. Shifting of cargo to alternate vehicle 7. Challenges in identification of alternative vehicle 8. Alternate vehicle scheduling update to customer 9. Sharing detail of updated consignment to the customer 	<ol style="list-style-type: none"> 1. Visit a transport hub for identifying the Requirements faced by the system. 2. List out the types of Requirements in consignment and prepare a chart. 3. Describe and discuss essentials required by consignor shipment business hub to resolve the Requirements through alternate vehicle. 	3
3. Inspect the vehicle for availability of all mandatory documentation for perishable goods handling	<ol style="list-style-type: none"> 1. Definition of Monitoring the consignment status 2. Tracking and tracing 3. Escalation procedures 4. Updating consignment information in the system 	<ol style="list-style-type: none"> 1. Visit a transport hub to identify the process of tracking and tracing. 	3

		<ol style="list-style-type: none"> List out the escalation procedure. Find out the essentials required for updating consignment information to the customer. 	
<ol style="list-style-type: none"> Communicate to customer in case of any change in vehicle, pickup plan and schedule of operations 	<ol style="list-style-type: none"> Tracking system in transportation Types of Tracking Difference between Manual Tracking and Automated Tracking EASE and comfortability in using GPS tracking Consignment delivery-issues Duties of executive and transport coordinator Communication and control of cargo transit 	<ol style="list-style-type: none"> Visit a transport hub to identify the reasons for delay in consignment delivery. List out the process of communication to customer. Describe and discuss about the Telematics which can be used in the consignment procedures. 	3
<ol style="list-style-type: none"> Inspect compliance to schedule by coordinating with vehicle driver while tracking the goods 	<ol style="list-style-type: none"> Meaning of vehicle routing and vehicle scheduling Procedure with documentation problems, accidents, GPS failure Duties of executive and the transport coordinator Communication and control through all phases of the cargo transit with tracking mechanism 	<ol style="list-style-type: none"> Coordinate with driver on a periodic basis to ensure adherence to transportation schedule and provide any support if required Track the vehicle through GPS and find out the reason for its failure Escalate to the executive or the transport coordinator in case of documentation problems, accidents, GPS 	3

		failure, or any other exigency	
6. Record location of consignment in ERP periodically to track movement and compliance to schedule	<ol style="list-style-type: none"> 1. Monitor status of each consignment 2. Tracking and tracing of consignments and vehicles 3. Escalation procedures and updating information on tracking consignment 4. Updating consignment information in the system 	<ol style="list-style-type: none"> 1. Countercheck if the consignments are loaded/unloaded against the lorry receipt (LR) details in the ERP. 2. Interact with customer and transporter to receive clarification or update in the ERP system in case of delays 3. Prepare a chart showing steps in escalation procedure 4. Update the tracking of consignment information in the computer system 	3
7. Review Executive, and Customer in case of documentation problems, accidents, GPS failure and any other case of exigencies	<ol style="list-style-type: none"> 1. Tracking system 2. Differences between manual tracking and automated tracking 3. Ease and comfortability in using GPS tracking 4. Reasons for delay in consignment delivery 	<ol style="list-style-type: none"> 1. Remind drivers of route changes/special weather conditions 2. Track the location of each consignment with GPS and find out reasons for delays if any and update the information in the system at regular interval 3. Generate reports for each consignment on delivery, reasons for delays if any, 	3

		etc. 4. Draw a chart showing the difference between manual tracking and automated tracking	
Total			20

Unit 2: GOODS AND SERVICES TAX APPLICATION IN TRANSPORTATION

Learning Outcome	Theory (05hrs)	Practical (15hrs)	Duration (20Hrs)
1. Differentiate location of service recipient and place of supply of services in Goods and Services Tax (GST) application	<ol style="list-style-type: none"> 1. Concept of GST in Land Transportation 2. Applicability in Land Transportation 3. Place of Supply of Service Under GST for Transportation 4. GST Location of Supplier and Recipient 	<ol style="list-style-type: none"> 1. Perform Simulated GST Registration for a Transport Company 2. Prepare Invoice for Goods Transportation 3. Prepare GST Rate Comparison for Different Modes of Transportation 	5
2. Determine the classification of the transaction to apply the right CGST, IGST, and SGST/UTGST	<ol style="list-style-type: none"> 1. Concept of Intrastate Transaction and Interstate Transaction 2. Relationship Between Interstate and Intrastate Transaction 3. GST Rules and Regulations Regarding Transportation in India 4. Reverse Charge Mechanism (RCM) in GST (Goods and Services Tax) 5. Reverse Charge on Certain Supplies from Unregistered Dealers 	<ol style="list-style-type: none"> 1. Conduct Group Discussion and Presentation on GST 2. Conduct GST Quiz 3. Perform Role-Play on E-Way Bill Generation. 	5

	6. Payments with GST 7. Rule 42 and Rule 43 under the Central Goods and Services Tax (CGST)		
3. Detail the rules and regulation in applying and reversing GST	1. GST registration process 2. Documents Required for GST Registration 3. Applicable Rate of GST (Based on Tax Rate)	1. Conduct GST Registration Workshop 2. Conduct Invoice Preparation Exercise 3. Perform GST Rate Calculation Challenge 4. Perform Compliance Checklist Creation	5
4. Demonstrate the applicability of GST based on documentation	1. GST invoice details and delivery challans 2. Essential Information in a GST Invoice 3. Information Required in a GST Invoice 4. Delivery Challans Under GST 5. Types of Delivery Challans under GST 6. Key Information in a Delivery Challan	1. Prepare Chart showing GST invoices 2. Perform Role Play on Creating Invoices 3. Create and analyse Debit and Credit Notes. 4. Prepare chart on Export Invoice Requirements.	5
Total			20

Unit 3: CONSIGNMENT CONSOLIDATION FOR TRANSPORTATION

Learning Outcome	Theory (05 hrs)	Practical (15 hrs)	Duration (20 Hrs)
1. Explain components of truck schedule and dispatch schedule	1. Meaning of Consignment Consolidation for Transportation 2. Schedule dispatch for truck business 3. Types of truck loads	1. Prepare a chart showing steps involved in the process of dispatch and Types of truck load. 2. Demonstrate the process of Judgment while utilising the space at the time of consignment consolidation	5

	4. Importance of space management		
2. Prepare consolidation plan on various parameters	<ol style="list-style-type: none"> 1. Concept, Nature and volume of goods in consolidation 2. Nature of Goods 3. Volume of Goods 4. Meaning, Advantage, Difference between FTL and LTL 5. Difference between LTL and FTL 6. Destination, delivery priority 7. Required documents while consolidating orders 8. Loading plan in consignment consolidation 9. Pallet box, plastic pallet and plastic containers 10. Features of load planning software 11. Relationship between transport coordinator and warehouse in-charge 12. Inspection procedure for loading goods 	<ol style="list-style-type: none"> 1. Prepare a Chart showing different styles of Plastic pallet, Pallet box and Plastic containers and documents required for consolidated order. 2. Prepare a report on Consolidation Plan 3. Prepare Loading Plan. 4. Prepare a Route for truck. 	5
3. Design loading plan to arrange goods in the demarcated space under consolidation order	<ol style="list-style-type: none"> 1. Concept of lashing and cushioning of goods 2. Importance of safety measures for Transportation 	<ol style="list-style-type: none"> 1. Demonstration the techniques of lashing and cushioning and prepare report. 2. Perform Simulation to design the procedure 	5

	<ol style="list-style-type: none"> 3. Procedures followed while booking trucks to pick-up and transport consignments 4. Meaning of quarantine and damaged goods 5. Procedure for handling damaged goods 6. Problems faced in the process of handling damaged goods 	<p>followed while booking trucks to pick up and transport consignments.</p> <ol style="list-style-type: none"> 3. Field Visit to identify the Procedure for handling damaged goods and prepare report. 	
4. Communicate consolidation plan and loading plan to stakeholders	<ol style="list-style-type: none"> 1. Meaning of dispatch and delay of goods 2. Reasons for delay in dispatch of goods 3. Ways that can reduce delays 4. Operating systems related to mis transports 5. Procedure to update on ERP with respect to goods 	<ol style="list-style-type: none"> 1. Perform Role play on dispatch and delay of goods. 2. Conduct a Field Visit to Transport hub or a warehouse hub and review and record in MIS. 	5
Total			20

Unit 4: INTEGRITY AND ETHICS FOR TRANSPORTATION

Learning Outcome	Theory (05hrs)	Practical (15hrs)	Duration (20 Hrs)
1. Describe the concepts of integrity, ethics and document integrity and ethics violations	<ol style="list-style-type: none"> 1. Concept of integrity, ethics 2. difference between ethical and unethical 3. Types of integrity violations 4. Integrity and ethics policy 5. Principles of code of 	<ol style="list-style-type: none"> 1. Perform simulation on Ethics Dilemma. 2. Conduct a Build a Workshop on Code of Ethics 	5

	<p>ethics and business ethics</p> <p>6. Principles of Code of Ethics for the Transportation Sector</p> <p>7. Principles of Business Ethics for the Transportation Sector</p>		
<p>2. Detail the various regulatory requirements related to logistics industry</p>	<p>1. Meaning of Regulatory requirements related to logistics industry</p> <p>2. Top Code of Ethics for Successful Logistics Providers</p> <p>3. Leadership and Respect for Others</p> <p>4. Selflessness and Non-judgement</p> <p>5. Business Ethics Policy</p> <p>6. Use Personal Protective Equipment (PPEs) in Accordance to Regulatory Requirements</p> <p>7. Utilisation of Company's Funds, Property</p> <p>8. Ethical and Unethical Practices in Logistic Industry</p>	<p>1. Developing a Code of Ethics Workshop</p>	<p>5</p>
<p>3. Explain data and information security practices</p>	<p>1. Importance of information security</p> <p>2. Procedures to be followed for information security</p> <p>3. Security measures to overcome data breach</p> <p>4. SOP for handling of different types of dangerous goods</p>	<p>1. Dangerous Goods Identification and Classification.</p> <p>2. Perform Simulation on Packaging and Labelling.</p> <p>3. Perform Emergency Response Table Top Exercise.</p> <p>4. Conduct group discussion on Compliance Check and Documentation.</p> <p>5. Conduct Inspection and Maintenance Walkthrough.</p>	<p>5</p>

4. Comply to regulatory requirements and corrupt practices	<ol style="list-style-type: none"> 1. Regulatory requirements and corrupt practices 2. Making Inroads on Corruption in the Transport Sector Through Control and Prevention 3. Corruption in Transport Sector 4. Meaning of Code of Conduct and Transport Etiquette 5. Compliance with the Code of Conduct 	<ol style="list-style-type: none"> 1. Conduct Transport Etiquette Awareness Campaign 2. Prepare an Interactive Compliance Checklists 	5
Total			20

Unit 5: HEALTH, SAFETY AND SECURITY NORMS

Learning Outcome	Theory (05hrs)	Practical (10 hrs)	Duration (15 Hrs)
1. Monitor health, safety and security procedures in port terminals, container freight stations (CFS) and inland container depots (ICD)	<ol style="list-style-type: none"> 1. Health,safety and security procedures in land transportation 2. Guidelines for the Use of Transportation Equipment 3. Occupational Health and Safety 4. Standards of Occupational Health and Safety 5. Workplace self-inspection / self-inspection checklists 6. Safety and Health Programmes 	<ol style="list-style-type: none"> 1. Conduct Group discussion on Health safety plan. 	3
2. Implement 5S at workplace of transportation	<ol style="list-style-type: none"> 1. Meaning and use the 5S Methodology 2. Why use the 5S Methodology? 3. 5S Colour-coding goes beyond cleaning and material handling tools. 4. Importance of a 5s Colour Code 	<ol style="list-style-type: none"> 1. Conduct 5S Colour-Coding Workshop 2. Perform 5S Implementation Simulation 	3

	<ol style="list-style-type: none"> 5. Best practices for using a 5S colour-coded system effectively 6. 5s colour visual standards 7. Typical 5s colour standards 8. Benefits of 5S Implementation 		
<ol style="list-style-type: none"> 3. Inspect area and equipment, for appropriate and safe conditions 	<ol style="list-style-type: none"> 1. Meaning of safe condition 2. Hazard identification and risk evaluation 3. Inspection of Work Area 4. General unsafe working environment 5. Training and Competence in the Use of Equipment 6. Empowered and Inspired Workers 7. Emergency Safety Equipment 8. Material Handling Equipment (MHE) 9. Various types of MHE – Material Handling Equipment 10. Transport Equipment 11. Positioning Equipment / Loading Equipment / Storage Equipment 12. Automated storage and retrieval systems AS/RS 13. Safety and Security Procedures in Tags and Labels 14. Documents required for better compliance 	<ol style="list-style-type: none"> 1. Perform Safety Equipment Inspection and Training 2. Conduct Workshop on 5S Colour-Coding. 3. Conduct Competence Building Workshop 	4
<ol style="list-style-type: none"> 4. Identify unsafe working conditions 	<ol style="list-style-type: none"> 1. Sop for dangerous and hazardous goods 2. Safety Data Sheet 3. Safety rules and procedures 	<ol style="list-style-type: none"> 1. Perform Emergency Response Drill 2. Conduct training on Hazardous Material Handling. 	5

	4. Protocol in case of Emergency Situations 5. Incident Report 6. Managing Deviations in Health, Safety and Security 7. Material Safety Data Sheet (MSDS) 8. Safety Procedures to be observed while loading/unloading: 9. Personal Protective Equipment 10. Handling Procedures for Dangerous Goods 11. Inspection of Activity Area for Appropriate and Safe Condition 12. Accident Investigation Policy	3. Perform role play on Workplace Safety Inspection	
Total			15

6. ORGANISATION OF FIELD VISITS

In a year, at least 3 field visits/educational tours should be organised for the students to expose them to the activities in the workplace.

Visit loading dock or loading bay and observe the following: Location, Site, Office building, bin, Entry & Exit gate, Store, Gate, fencing, Bumpers, Dock leveller, Dock lift, Dock seals or dock shelters, Truck or vehicle restraint system, Dock light, Loading dock software, Side shift. During the visit, students should obtain the following information from the Owner /Supervisor / Manager of the loading dock:

1. Area under loading dock and its layout
2. Types of products entered in loading dock
3. Type of trucks
4. Various equipment's used at trucks
5. Documents used at the time of arrival and dispatch of goods
6. Sale procedure
7. Manpower engaged
8. Total expenditure of loading dock
9. Total annual income
10. Profit/Loss (Annual)
11. Any other information

7. LIST OF EQUIPMENT AND MATERIALS

The list given below is suggestive and an exhaustive list should be prepared by the vocational teacher. Only basic tools, equipment and accessories should be procured by the Institution so that the routine tasks can be performed by the students regularly for practice and acquiring adequate practical experience.

A. Training Material inside Lab

Sl. No.	Name of Item	Quantity	Approximate Cost
1.	Physical balance(01mg) / Counter Balance (01gm sensitivity)	1	2400
2.	Digital moisture meter calibrated for all the commodities to be stored/ handled	1	15000
3.	Sieve Set	1	2500
4.	Scoops (different sizes)	2 sets	3000
5.	Forceps and brushes	2 sets	1000
6.	Weight Box (1mg to 200gm)	1 set	2000
7.	Enamel plates with smooth white surface (30 cm dia with raised rims)	10	3000
8.	Sample bags-polythene and cloth	As per Requirement	1000
9.	Parkhi (Bag trier)	As per Requirement	800
10.	Sample seal	1	200
11.	Magnifying glass (magnification 10X)	2	3200
12.	Petri dish (80X70 mm)	As per Requirement	90
13.	Measuring Cylinders (5ml to 50ml) graduated	5	1700
14.	Recommended Pesticides(for prophylactic and curative treatments) and rat control	As per requirement	800
15.	Rat cages (wonder traps)	As per requirement	200
16.	Thermoplastic fumigation covers (IS 13217:1991)	As per requirement	300
17.	Multilayered cross laminated fumigation sheets/covers (IS 14611:1998)	As per requirement	800
18.	Foot / Hand sprayers	As per requirement	3000
19.	Sand snakes	As per requirement	8000
20.	Adhesive tape	As per requirement	80

21.	Tarpaulin	2	2000
22.	Ladder	1	800
23.	First Aid box	1	800
24.	Fire extinguishers	As prescribed in Annexure V	800
25.	Fire buckets	As prescribed in Annexure V	250
26.	Platform Scales	As per need	450
27.	Gum boots	As per requirement	600
28.	Goggles	As per requirement	500
29.	Gas Mask (full vision facemask) & Canister for use with ALP	As per requirement	600
30.	Polythene film	As per requirement	700
31.	Bamboo mats	As per requirement	500
32.	Wooden crates/polycrates	As per requirement	300
33.	Hectolitre weight apparatus	1	15000
34.	Sample Divider	1	15000
35.	Vernier Caliper (manual/Digital)	1	16000
36.	Thermo-hygrometer	2	2000
37.	Glass wares (Beakers 500 ml, Funnels, Flasks conical 200 ml & 500 ml)	Two each	100
38.	Filter papers	As per requirement	600
39.	Chemical reagents: (i) Methylene Blue solution (ii) Dilute hydrochloric acid (iii) distilled water (for determination of de-husked grain in rice)	As per requirement	5000
40.	Glass tubes	10	600
41.	Metal Probe (12 ft long for introducing ALP tablets)	As per requirement	750
42.	Phosphine Alert personal monitor	1	18000
43.	Phosphine gas Monitor	1	8000
44.	Tool Box (for minor repairs of pesticide application equipment)	As per requirement	14000
45.	Dust Mask	As per requirement	5000
46.	Aprons	As per requirement	500
47.	Resuscitator	1	800
48.	Dummy Truck	1	30000

B. Equipment to be seen during Field Visit

1. Sample documents
 - Picklist, BOM,
 - Transportation/Truck Schedules,
 - Inventory record sheet
2. Sample SOP documents
 - MHE – Forklift,
 - Stackers,
 - reach trucks,
 - HOPT, BOPT etc.
3. IT Systems
 - Barcode
 - scanners,
 - Wi-Fi systems
4. Material Handling Equipment
 - HOPT,
 - BOPT,
 - Stacker,
 - ladder,
 - Forklift etc
5. Pallets, Totes, Storage Bins
6. Shrink wraps, Dunnage
7. Storage racks
8. Basic 5s charts
 - Sample Inventory tracking sheet,
 - Sample Inventory records,
 - Requisition forms,
 - Incident reports etc
9. First Aid Kit
10. Safety and security equipments on site
 - Fire extinguisher
 - Security cameras
 - LCD screens
 - Safety sign boards
 - Personal protective equipments (PPE) like gloves, helmets, ear plugs, jackets, harness, boiler suit etc.
 - Locking systems
11. Housekeeping equipments on site
 - Vacuum cleaner
 - Mops
 - Cleaning chemicals
 - Cleaning Robots
 - Air purifiers
 - Filtering machines
 - Spill Absorbents
12. Waste disposal equipment's such as scrap bins, recyclers, waste processing machines etc

13. Any other equipment mentioned in the student's manual can be sighted during the field visit

C. Teaching/Training Aids

1. Computer
2. LCD Projector
3. Projection Screen
4. White/Black Boards
5. Flip Charts

8. TEACHER'S/TRAINER'S QUALIFICATION

Qualification and other requirements for appointment of vocational teachers/trainers on contractual basis should be decided by the State/UT. The suggestive qualifications and minimum competencies for the vocational teacher should be as follows:

Sl. No.	Qualification	Minimum Competencies	Age Limit
1.	Graduate (B. Com/BBA) Or Three-years Diploma in Logistics Management, P.G. Diploma in Logistics Management with at least 55% marks And One-year work or teaching experience in the area of logistics. Preference given to higher education with MBA/M. Com (Logistics Management) and PG Diploma in Logistics Management.	<ul style="list-style-type: none"> • Effective communication skills (oral and written) • Basic computing skills. • Technical competencies (e.g. in areas such as marketing, sales promotion, store maintenance, marketing and merchandising etc.) 	18-37 years (as on Jan. 01 (year)) Age relaxation to be provided as per Govt. rules.

Vocational Teachers/Trainers form the backbone of Vocational Education being imparted as an integral part of *Samagra Shiksha* (SS). They are directly involved in teaching of vocational subjects and also serve as a link between the industry and the schools for arranging industry visits, On-the-Job Training (OJT) and placement.

These guidelines have been prepared with an aim to help and guide the States in engaging quality Vocational Teachers/Trainers in the schools. Various parameters that need to be looked into while engaging the Vocational Teachers/Trainers are mode and procedure of selection of Vocational Teachers/Trainers, Educational Qualifications, Industry Experience, and Certification/Accreditation.

The State may engage Vocational Teachers/Trainers in schools approved under the component of Vocationalisation of Secondary and Higher Secondary Education under RMSA in the following ways:

- (i) Directly as per the prescribed qualifications and industry experience suggested by the PSS Central Institute of Vocational Education (PSSCIVE), NCERT or the respective Sector Skill Council (SSC)

OR

- (ii) Through accredited Vocational Training Providers accredited under the National Quality Assurance Framework (NQAF*) approved by the National Skill Qualification Committee on 21.07.2016. If the State is engaging Vocational Teachers/Trainers through the Vocational Training Provider (VTP), it should ensure that VTP should have been accredited at NQAF Level 2 or higher.

** The National Quality Assurance Framework (NQAF) provides the benchmarks or quality criteria which the different organisations involved in education and training must meet in order to be accredited by competent bodies to provide government-funded education and training/skills activities. This is applicable to all organizations offering NSQF-compliant qualifications.*

The educational qualifications required for being a Vocational Teacher/Trainer for a particular job role are clearly mentioned in the curriculum for the particular NSQF compliant job role. The State should ensure that teachers / trainers deployed in the schools have relevant technical competencies for the NSQF qualification being delivered. The Vocational Teachers/Trainers preferably should be certified by the concerned Sector Skill Council for the particular Qualification Pack/Job role which he will be teaching. Copies of relevant certificates and/or record of experience of the teacher/trainer in the industry should be kept as record.

To ensure the quality of the Vocational Teachers/Trainers, the State should ensure that a standardized procedure for selection of Vocational Teachers/Trainers is followed. The selection procedure should consist of the following:

- (i) Written test for the technical/domain specific knowledge related to the sector;
- (ii) Interview for assessing the knowledge, interests and aptitude of trainer through a panel of experts from the field and state representatives; and
- (iii) Practical test/mock test in classroom/workshop/laboratory.

In case of appointment through VTPs, the selection may be done based on the above procedure by a committee having representatives of both the State Government and the VTP.

The State should ensure that the Vocational Teachers/Trainers who are recruited should undergo induction training of 20 days for understanding the scheme, NSQF framework and Vocational Pedagogy before being deployed in the schools.

The State should ensure that the existing trainers undergo in-service training of 5 days every year to make them aware of the relevant and new techniques/approaches in their sector and understand the latest trends and policy reforms in vocational education.

The Head Master/Principal of the school where the scheme is being implemented should facilitate and ensure that the Vocational Teachers/Trainers:

- (i) Prepare session plans and deliver sessions which have a clear and relevant purpose and which engage the students;
- (ii) Deliver education and training activities to students, based on the curriculum to achieve the learning outcomes;
- (iii) Make effective use of learning aids and ICT tools during the classroom sessions;

- (iv) Engage students in learning activities, which include a mix of different methodologies, such as project-based work, team work, practical and simulation-based learning experiences;
- (v) Work with the institution's management to organise skill demonstrations, site visits, on-job trainings, and presentations for students in cooperation with industry, enterprises and other workplaces;
- (vi) Identify the weaknesses of students and assist them in up gradation of competency;
- (vii) Cater to different learning styles and level of ability of students;
- (viii) Assess the learning needs and abilities, when working with students with different abilities
- (ix) Identify any additional support the student may need and help to make special arrangements for that support;
- (x) Provide placement assistance

Assessment and evaluation of Vocational Teachers/Trainers is very critical for making them aware of their performance and for suggesting corrective actions. The States/UTs should ensure that the performance of the Vocational Teachers/Trainers is appraised annually. Performance based appraisal in relation to certain pre-established criteria and objectives should be done periodically to ensure the quality of the Vocational Teachers/Trainers. Following parameters may be considered during the appraisal process:

1. Participation in guidance and counselling activities conducted at Institutional, District and State level;
2. Adoption of innovative teaching and training methods;
3. Improvement in result of vocational students of Grade X or Grade XII;
4. Continuous up gradation of knowledge and skills related to the vocational pedagogy, communication skills and vocational subject;
5. Membership of professional society at District, State, Regional, National and International level;
6. Development of teaching-learning materials in the subject area;
7. Efforts made in developing linkages with the Industry/Establishments;
8. Efforts made towards involving the local community in Vocational Education
9. Publication of papers in National and International Journals;
10. Organisation of activities for promotion of vocational subjects;
11. Involvement in placement of students/student support services.

9. LIST OF CONTRIBUTORS

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