LEARNING OUTCOME BASED VOCATIONAL CURRICULUM

JOB ROLE: JUTE PRODUCTS ARTISAN

(QUALIFICATION PACK: HCS/Q7405)

SECTOR: Handicrafts and Carpet Sector

Grade 11 and 12



PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION

(a constituent unit of NCERT, under MHRD, Government of India)

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

http://www.psscive.ac.in



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.

mkgamshi







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July, 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 **Jute Product Artisan**. The curriculum has been developed for the secondary students of Grade 11 and 12 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 elearning 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) and the National Skill Development Corporation (NSDC), for their academic support and cooperation in the development of Qualification file and curriculum.

We are thankful to the course coordinator Dr. Pinki Khanna Professor and Head of Department of Home Science and Hospitality Management (DHSHM), Amit Chotrani, Assistant Professor, Department of Home Science and Hospitality Management (DHSHM), Nupur Srivastava Assistant Professor, Department of Home Science and Hospitality Management (DHSHM), and the experts for their untiring efforts and contributions to the development of this learning outcome-based curriculum. 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 Mr Akhilesh Kashiv, Computer Operator Grade-III in typing and composing of the material.

PSSCIVE Team

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1. COURSE OVERVIEW

COURSE TITLE: Handicrafts and Carpet Sector – Jute Products Artisan

A Jute Products Artisan is a job-role associated with Handicrafts and Carpet Sector. The primary responsibility of an artisan is to produce diversified range of jute products of definite shape and size as per sale advice note or as per market demand. Produce jute products with proportionate measurements and fine finishing at a rate which maintains work flow and meets production targets. Identify stitch faults in the product components and maintain report production progress to the supervisor. For all such products to be popularized in the national and international market, they need to be produced as per customer's given standards, hence, the job holder should know how to produce quality jute crafted products as per the market demand and set standards. Moreover, Jute Products Artisan should be able to develop and demonstrate good eye-hand coordination, good eyesight, eye for detail, basic math skills and vision (including near vision, distance vision, colour vision, peripheral vision, depth perception and ability to change focus).

COURSE OUTCOMES: On completion of the course, student 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.
- Understand technical terms and tool associate with different types of processes
- Familiarize with Handicraft and Carpet Industry
- Identify and understand the roles and responsibilities of a Jute Products Artisan
- Understand Jute products development process
- Identify commonly used tools and equipment
- Identify different types of measuring tools and stitches
- Identify and understand jute product components and tasks required to assemble
- Identify trims and accessories used in jute products
- Develop checklist for different tasks within specified area of pressing, finishing and
- Demonstrate Jute Products Artisan according to specification
- Describe the importance and practice of safety and health measures in the industry
- Explain Strategies for preventing hazards at work place
- Explain measures to control hazards at workplace
- Describe the different quality measures of Jute Industry
- Report the damage or faults in material and assembly to the responsible person

COURSE REQUIREMENTS: The learner should have the basic knowledge of Handlooms, measuring, cutting and stitching.

COURSE LEVEL: This is a course for grade XI and XII. On completion of this course, a student can take up a higher level course in the area of Handicrafts and Carpets.

COURSE DURATION: 600Hrs

> Class 11: 300Hrs Class 12: 300Hrs Total: 600Hrs

2. SCHEME OF UNITS

f This course is a planned sequence of instructions consisting of Units meant for developing employability and vocational competencies of students of Grade 11 and 12 opting for vocational subject along with general education subjects. The unit-wise distribution of hours and marks for grade 11 is as follows:

	Units	No. of Hours for Theory and Practical 300	Max. Marks for Theory and Practical 100
Part A	Employability Skills		
	Unit 1: Communication Skills – III	25	
	Unit 2: Self-management Skills – III	25	
	Unit 3: Information and Communication Technology Skills – III	20	10
	Unit 4: Entrepreneurial Skills – III	25	
	Unit 5: Green Skills – III	15	
	Total	110	10
Part B	Vocational Skills		
	Unit 1: Introduction to Fibres, yarns and fabrics	50	
	Unit 2: Introduction to Jute	50	
	Unit 3: Handicrafts handloom and Jute Industry	25	40
	Unit 4: Jute: Products and Techniques	20	
	Unit 5: Work area, tools and machines	20	

	Unit 6: Health, safety and security at workplace		
	Total	165	40
Part C	Practical Work		
	Practical Examination	06	15
	Written Test	01	10
	Viva Voce	03	10
	Total	10	35
Part D	Project Work/Field Visit		
	Practical File/Student Portfolio	10	10
	Viva Voce	05	05
	Total	15	15
	Grand Total	300	100

The unit-wise distribution of hours and marks for grade 12 is as follows:

	GRADE 12	2	
	Units	No. of Hours for Theory and Practical 300	Max. Marks for Theory and Practical 100
Part A	Employability Skills		
	Unit 1: Communication Skills – IV	25	
	Unit 2: Self-management Skills – IV	25	
	Unit 3: Information and Communication Technology Skills – IV	20	10
	Unit 4: Entrepreneurial Skills – IV	25	
	Unit 5: Green Skills – IV	15	
	Total	110	10
Part B	Vocational Skills		
	Unit 1 Embellishment techniques	50	
	Unit 2: Finishing, packing and Quality Management	50	
	Unit 3: Jute Products: Bags and Folders	25	40
	Unit 4: Jute Products: Dolls and their variations	20	
	Unit 5: Working in a team	10	

	Unit 6: Complying with work place requirements	10	
	Total	165	40
Part C	Practical Work		
	Practical Examination	06	15
	Written Test	01	10
	Viva Voce	03	10
	Total	10	35
Part D	Project Work/Field Visit		
	Practical File/Student Portfolio	10	10
	Viva Voce	05	05
Total		15	15
	Grand Total	300	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, jute fabric samples 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, and 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: 40 No. of Questions S. **Very Short** Short Long Answer No. Typology of Question Answer Answer Marks (1 mark) (2 Marks) (3 Marks) 1. Remembering – (Knowledge based simple recall questions, to know specific facts, terms, 13 3 2 2 concepts, principles, or theories; identify, define or recite, information) 2. Understanding -(Comprehension – to be familiar with meaning and to understand conceptually, interpret, 14 2 3 2 compare, contrast, explain, paraphrase, or interpret information) 3. Application – (Use abstract information in concrete situation, to apply knowledge to new situations: Use given content to 0 2 07 interpret a situation, private an example, or solve a problem) 4. High Order Thinking Skills -(Analysis & Synthesis – Classify, compare, contrast, or differentiate between different 0 2 0 04 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 0 02 1 0 predict outcomes based on values)

SKILL ASSESSMENT (PRACTICAL)

Total

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

5x1=5

10x2=20

5x3=15

(20questions)

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 11

Part A: Employability Skills

S. No.	Units	Duration (hrs)	
1.	Communication Skills- III	25	
2.	Self-management Skills – III	25	
3.	Information and Communication Technology Skills - III	20	
4.	Entrepreneurial Skills – III	25	
5.	Green Skills – III	15	
	Total		

UNIT 1: COMMUNICATION SKILLS – III				
Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Duration (25 hrs)	
Demonstrate knowledge of communication	 Introduction to communication process Importance of communication Elements of communication Perspectives in communication Effective communication 	 Role play on the communication process Group discussion on the importance of communication and factors affecting perspectives in communication Charts preparation on elements of communication Classroom discussion on the 7Cs (i.e. Clear, Concise, Concrete, Correct, Coherent, Courteous and Complete) for effective communication 	03	
Demonstrate verbal communication	 Verbal communication Public Speaking 	 Role-play of a phone conversation. Group activity on delivering a speech and practicing public speaking 	02	
3. Demonstrate non- verbal communication	Importance of non-verbal communication Types of non-verbal communication Visual communication	1. Role-play on non-verbal communication 2. Group exercise and discussion on Do's and Don'ts to avoid body language mistakes 3. Group activity on methods of communication	02	
4. Demonstrate speech using correct pronunciation	 Pronunciation basics Speaking properly Phonetics Types of sounds 	Group activities on practicing pronunciation	01	

		T	1
5. Apply an assertive communication style	 Important communication styles Assertive communication Advantages of assertive communication Practicing assertive communication 	 Group discussion on communication styles Group discussion on observing and sharing communication styles 	03
Demonstrate the knowledge of saying no	Steps for saying 'No' Connecting words	Group discussion on how to say 'No'	02
7. Identify and use parts of speech in writing	 Capitalisation Punctuation Basic parts of speech Supporting parts of speech 	 Group activity on identifying parts of speech Writing a paragraph with punctuation marks Group activity on constructing sentences Group activity on identifying parts of speech 	03
8. Write correct sentences and paragraphs	 Parts of a sentence Types of object Types of sentences Paragraph 	 Activity on framing sentences Activity on active and passive voice Assignment on writing different types of sentences 	02
9. Communicate with people	Greetings Introducing self and others	 Role-play on formal and informal greetings Role-play on introducing someone Practice and group discussion on how to greet different people? 	02
10. Introduce yourself to others and write about oneself	Talking about self Filling a form	 Practicing self- introduction and filling up forms Practicing self- introduction to others 	01

11. Develop questioning skill	 Main types of questions Forming closed and open-ended questions 	 Practice exercise on forming questions Group activity on framing questions 	01
12. Communicate information about family to others	Names of relatives Relations	Practice talking about family Role-play on talking about family members.	01
13. Describe habits and routines	Concept of habits and routines	 Group discussion on habits and routines Group activity on describing routines 	01
14. Ask or give directions to others	Asking for directions Using landmarks	 Role-play on asking and giving directions Identifying symbols used for giving directions 	01
Total			

UNIT 2: SELF-MANAGEMENT-III				
Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Duration (25 hrs)	
Identify and analyse own strengths and weaknesses	 Understanding self Techniques for identifying strengths and weaknesses Difference between interests and abilities 	Activity on writing aims in life Preparing a worksheet on interests and abilities	03	
2. Demonstrate personal grooming skills	 Guidelines for dressing and grooming Preparing a personal grooming checklist 	 Role-play on dressing and grooming standards Self-reflection activity on various aspects of personal grooming 	04	
3. Maintaining personal hygiene	 Importance of personal hygiene Three steps to personal hygiene Essential steps of hand washing 	 Role-play on personal hygiene Assignment on personal hygiene 	03	

4. Demonstrate the knowledge of working in a team and participating in group activities	Describe the benefits of teamwork Working in a team	 Assignment on working in a team Self-reflection on teamwork 	03
5. Develop networking skills	Benefits of networking skills Steps to build networking skills	Group activity on networking in action Assignment on networking skills	03
6. Describe the meaning and importance of self-motivation	 Meaning of self- motivation Types of motivation Steps to building self- motivation 	 Activity on staying motivated Assignment on reasons hindering motivation 	03
7. Set goals	Meaning of goals and purpose of goal-setting Setting SMART goals	 Assignment on setting SMART goals Activity on developing long- term and short-term goals using SMART method 	03
8. Apply time management strategies and techniques	Meaning and importance of time management Steps for effective time management	Preparing a checklist of daily activities	03
	Total		25

U	UNIT 3: INFORMATION AND COMMUNICATION TECHNOLOGY-III			
	Learning Outcome	Theory (08 hrs)	Practical (12 hrs)	Duration (20 hrs)
1.	Create a document on the word processor	 Introduction to ICT Advantages of using a word processor. Work with Libre Office Writer 	 Demonstration and practice of the following: Creating a new document Typing text Saving the text Opening and saving file on Microsoft Word/Libre Office Writer. 	02

2. Identify icons on the toolbar	 Status bar Menu bar Icons on the Menu bar Multiple ways to perform a function 	 Group activity on using basic user interface of LibreOffice writer Group activity on working with Microsoft Word 	02
3. Save, close, open and print document	 Save a word document Close a word document Open an existing document Print 	 Group activity on performing the functions for saving, closing and printing documents in LibreOffice Writer Group activity on performing the functions for saving, closing and printing documents in Microsoft Word 	02
4. Format text in a word document	 Change style and size of text Align text Cut, Copy, Paste Find and replace 	 Group activity on formatting text in LibreOffice Writer Group activity on formatting text in Microsoft Word 	02
5. Check spelling and grammar in a word document	Use of spell checker Autocorrect	Group activity on checking spellings and grammer using LibreOffice Writer Group activity on checking spellings and grammer using Microsoft Word	02
6. Insert lists, tables, pictures, and shapes in a word document	 Insert bullet list Number list Tables Pictures Shapes 	Practical exercise of inserting lists and tables using LibreOffice Writer	03
7. Insert header, footer and page number in a word document	 Insert header Insert footer Insert page number Page count 	 Practical exercise of inserting header, footer and page numbers in LibreOffice Writer Practical exercise of inserting header, footer and page numbers in Microsoft Word 	03

8. Make changes by using the track change option in a word document	 Tracking option Manage option Compare documents 	 Group activity on performing track changes in LibreOffice Writer Group activity on performing track changes in Microsoft Word 	04
	Total		20

UNIT 4: ENTREPRENEURIAL SKILLS – III			
Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Duration (25 hrs)
Differentiate between different kinds of businesses	Introduction to entrepreneurship Types of business activities	Role-play on different kinds of businesses around us	03
2. Describe the significance of entrepreneurial values	 Meaning of value Values of an Entrepreneur Case study on qualities of an entrepreneur 	Role-play on qualities of an entrepreneur	03
3. Demonstrate the attitudinal changes required to become an entrepreneur	Difference between the attitude of entrepreneur and employee	Interviewing employees and entrepreneurs	03
4. Develop thinking skills like an entrepreneur	 Problems of entrepreneurs Problem-solving Ways to think like an entrepreneur 	Group activity on identifying and solving problems	04
5. Generate business ideas	 The business cycle Principles of idea creation Generating a business idea Case studies 	Brainstorming on generating a business ideas	04
Describe customer needs and the importance of conducting a	 Understanding customer needs Conducting a customer survey 	Group activity to conduct a customer survey	04

customer survey			
7. Create a business plan	 Importance of business planning Preparing a business plan Principles to follow for growing a business Case studies 	Group activity on developing a business plan	04
	Total		25

UNIT 5: GREEN SKILLS – III			
Learning Outcome	Theory (07 hrs)	Practical (08 hrs)	Duration (15 hrs)
Describe the importance of the main sector of the green economy	1. Meaning of ecosystem, food chain and sustainable development 2. Main sectors of the green economy- E-waste management, green transportation, renewal energy, green construction, and water management	1. Group discussion on sectors of green economy 2. Poster making on various sectors for promoting green economy	06
Describe the main recommendations of policies for the green economy	Policies for a green economy	1. Group discussion on initiatives for promoting the green economy 2. Writing an essay or a short note on the important initiatives for promoting green economy.	03
3. Describe the major green sectors/ areas and the role of various stakeholders in the green economy	Stakeholders in the green economy	Group discussion on the role of stakeholders in the green economy Making solar bulbs.	03
4. Identify the role of government and private agencies in the green	Role of the government in promoting a green economy Role of private agencies	Group discussion on the role of Government and Private Agencies in	03

		Total		15
			green sectors.	
			2. Poster making on	
		economy	economy.	
	economy	in promoting green	promoting a green	
1				l

Part B: Vocational Skills

S. No.	Units	Duration (Hrs)
1.	Unit 1: Introduction to Fibres, yarns and fabrics	40
2.	Unit 2: Introduction to Jute	35
3.	Unit 3: Handicrafts, handloom and Jute Industry	25
4.	Unit 4: Jute: Products and Techniques	25
5.	Unit 5: Work area, tools and machines	20
6.	Unit 6: Health, Safety and Security at Workplace	20
	Total	165

UNIT 1: INTRODUCTION TO FIBRES, YARNS AND FABRICS			
Learning Outcome	Theory (15 Hrs)	Practical (25 Hrs)	Duration (40 Hrs)
1. Identification and Classification of fibres and their Properties	 Introduction to fibre and fibre properties Fibre Classification Properties of natural and manmade fibres 	 Identify and enlist characteristics of different fibres and yarns Burning test of fibres fibre sample observation 	13
2. Identify Types & Properties of Yarns and Factors Affecting Yarns	 Introduction to yarn Yarn Classification Yarn construction methods Factors affecting yarn properties 	Draw a chart to explain different types of yarn	12

3. Define and describe Fabrics and their Properties	 Introduction to Fabric Fabric Construction Techniques ` Effect of Fabric Construction on Fabric properties Uses of different Fabrics- in different sectors/industry Factors affecting Fabric Choice 	 Prepare swatch book of different samples of fabric Draw flow chart explaining fibre to fabric process. 	15
	Total		40

UNIT 2: INTRODUCTION TO JUTE			
Learning Outcome	Theory (15 Hrs)	Practical (20 Hrs)	Duration (35 Hrs)
Identify and describe jute fibre and Yarn	 Introduction to jute fibre Properties of jute fibres (chemical and physical) Processing of jute fibres Production of Jute yarns 	Identify and enlist characteristics of jute fibres and yarns	10
2. Explain production and finishing of jute fabric	 Introduction to Jute Fabric Production of Jute fabric Dyeing process of Jute fabric Finishing of jute fabric Industrial Processing of Jute Benefits and uses of Jute 	 Prepare swatch book of different samples of jute fabric Industry visit to understand the processing and production. 	15
3. Describe Jute Recycling	 Introduction to Jute recycling Jute recycling process, benefits and relevance 	Prepare a flow chat of Jute recycling	10
	Total	,	35

Learning Outcome	Theory (10 Hrs)	Practical (15 Hrs)	Duration (25 Hrs)
1. Explain jute industry, Handicrafts and handloom industry	 Introduction to Handloom and Handicraft Industry and its Structure Scenario of Jute Industry in India Unique features and future prospect of jute industry Employment opportunities in Jute Industry 	 Identify and locate jute hubs on the Map of India. Watching and observing jute handicraft documentary Market survey of jute products. 	10
2. Analyze and describe scope and opportunities in jute industry	 Different types of jute products manufacturing in India and their exports Jute product diversification for technical textiles Challenges and limitations faced by jute industry in India 	 Prepare a report on scope of jute industry in India Make a power point presentation on scope and importance of jute industry 	05
3. Identify jute market and consumers	 Diversified jute products and their market Jute product market- Domestic and International Government initiatives to support jute industry. 	Prepare a market survey report for demand of jute products	10
	Total		25

Learning Outcome	Theory (10 Hrs)	Practical (15 Hrs)	Duration (25 Hrs)
Explain roles and responsibilities of Jute Products Artisan	 Attributes of Jute Product Artisan Role and Responsibilities of Jute Product Artisan Product and Material Handling 	1. Visit a jute industry/cluster, observe roles and responsibilities of Jute Products Artisan and document the same.	06
Demonstrate tools and equipment used in Jute Industry	 Tools and equipment required in development of jute products Use of Measuring, Marking and Cutting Tools Importance of Tools and equipments 	1. Recognize and develop a flow chart of different tools and equipment used by a jute products artisan at different stages of production	06
3. Explain Production of jute products	1. Introduction to production process of jute products: Designing Estimation Pattern-making and Cutting Stitching or Assembling Finishing and Packing	1. Develop production flow chart of a jute product 2. Prepare specification sheet for a jute product	06
4. Explain Development of Jute Products using Different Techniques	Design and development of Jute products Table Mates Coasters	Design development and construction of the table mats and coasters	07
	Total		25

UNIT 5: WORK AREA, TO	UNIT 5: WORK AREA, TOOLS AND MACHINES			
Learning Outcome	Theory (7 Hrs)	Practical (13 Hrs)	Duration (20 Hrs)	
Explain handling of tools and materials	 Handling materials and tools Maintenance of tools Methods of cleaning the tools 	Collect the data and make a report on safety measures	8	
2. Describe Storage and Waste Management	 Storing the material safely and correctly Waste management 	Visit a jute industry and prepare a PowerPoint presentation on the ways of storage of different material Demonstrate to store the material safely and correctly	8	
3. Analyze use of Tools and Material as per Work Flow Standards	Use of correct tools and material Introduction to running maintenance	Carryout running maintenance of different tools	4	
	Total		20	

UNIT 6: HEALTH, SAFETY AND SECURITY AT WORKPLACE			
Learning Outcome	Theory (7 Hrs)	Practical (13 Hrs)	Duration (20 Hrs)
Analyze hazards and safety at workplace	Identify workplace hazards across physical, chemical, biological, and ergonomic categories.	Collect the data and make a report on risk and hazards of industry	6
	Understand how hazards affect health and safety in handicraft and textile sectors.		
	3. Apply safety measures like PPE, ventilation, and proper machine handling to reduce risks.		
	4. Understand safety culture through training, compliance, and incident reporting.		
Describe health, hygiene at workplace	Identify the importance of maintaining personal and workplace hygiene.	 Demonstrate how to handle materials and tools Prepare a report of maintenance 	7
	Demonstrate basic hygiene practices, use of protective gear.		
	Explain how a healthy lifestyle contributes to		

and Environmental Management	system 2. Layout of the plant, details of emergency and safety aspects 3. Potential accidents and response to these scenarios	factory 2. Prepare a report of emergency situation	7 20
3. Explain Emergencies	maintaining cleanliness and proper waste disposal at the workplace. 1. Environmental management	Visit an industry and study layout of the factory	
	workplace efficiency and safety. 4. Apply methods for		

GRADE 12

Part A: Employability Skills

S. No.	Units	Duration (hrs)	
1.	Communication Skills- IV	25	
2.	Self-management Skills - IV	25	
3.	Information and Communication Technology Skills - IV	20	
4.	Entrepreneurial Skills – IV	25	
5.	Green Skills – IV	15	
	Total		

UNIT 1: COMMUNICATION SKILLS - IV			
Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Duration (25 hrs)
Demonstrate active listening skills	 Active listening - listening skill, stages of active listening Overcoming barriers to active listening 	 Group discussion on factors affecting active listening Poster making on steps for active listening Role-play on negative effects of not listening actively 	10

2. Identify the parts of speech	1. Parts of speech – using capitals, punctuation, basic parts of speech, Supporting parts of speech	Group practice on identifying parts of speech Group practice on constructing sentences	10
3. Write sentences	1. Writing skills to practice the following: • Simple sentence • Complex sentence • Types of object 2. Identify the types of sentences • Active and Passive sentences • Statement/ • Declarative sentence • Question/ • Interrogative sentence - Emotion/ Reaction or Exclamatory sentence - Order or Imperative sentence 3. Paragraph writing	 Group activity on writing sentences and paragraphs Group activity on practicing writing sentences in active or passive voice Group activity on writing different types of sentences (i.e., declarative, exclamatory, interrogative and imperative) 	05
	Total		25

Learning	Theory	Practical	Duration
Outcome	(10 hrs)	(15 hrs)	(25 hrs)
escribe the various factors influencing motivation and positive attitude	 Motivation and positive attitude Intrinsic and extrinsic motivation Positive attitude – ways to maintain positive attitude Stress and stress management - ways to manage 	 Role-play on avoiding stressful situations Activity on listing negative situations and ways to turn it positive 	10

2.	Describe how to become result oriented	How to become result oriented? Goal setting – examples of result-oriented goals Group activit aim in life	y on listing 05
3.	Describe the importance of self-awareness and the basic personality traits, types and disorders	 Steps towards selfawareness Personality and basic personality traits Common personality disorders Suspicious Emotional and impulsive Anxious Group discuss self- awarenes Group discuss common personality disorders Brainstorming overcome personality disorder Anxious Steps to overcome Personality disorders 	sion on sonality steps to
		Total	25

Learning Outcome	Theory (06 hrs)	Practical (14 hrs)	Duration (20 hrs)
Identify the components of a spreadsheet application	Getting started with spreadsheet - types of a spreadsheet, steps to start LibreOffice Calc., components of a worksheet.	Group activity on identifying components of spreadsheet in Libre Office Calc.	02
Perform basic operations in a spreadsheet	 Opening workbook and entering data – types of data, steps to enter data, editing and deleting data in a cell Selecting multiple cells Saving the spreadsheet in various formats Closing the spreadsheet Opening the spreadsheet Printing the spreadsheet 	f working with data on LibreOffice Calc.	03

	Total		20
8. Demonstrate the use of advanced features in a presentation	 Advanced features used in a presentation Inserting shapes in the presentation Inserting clipart and images in a presentation Changing slide layout 	Group activity on changing slide layout on LibreOffice Impress	03
7. Demonstrate the operations related to slides and texts in the presentation	1. Working with slides and text in a presentation-adding slides to a presentation, deleting slides, adding and formatting text, highlighting text, aligning text, changing text colour	Group activity on working with font styles in LibreOffice Impress	04
6. Demonstrate the knowledge to open, close and save slide presentations	Open, Close, Save and Print a slide presentation	Group activity on saving, closing and opening a presentation in LibreOffice Impress	01
5. Make use of the software used for making slide presentations	 Presentation software available Stapes to start LibreOffice Impress Adding text to a presentation 	Group practice on working with LibreOffice Impress tools	02
4. Demonstrate the knowledge of using advanced features in spreadsheet	 Sorting data Filtering data Protecting spreadsheet with password 	Group activity on sorting data in LibreOffice Calc	03
3. Demonstrate the knowledge of working with data and formatting text	 Using a spreadsheet for addition – adding value directly, adding by using cell address, using a mouse to select values in a formula, using sum function, copying and moving formula Need to format cell and content Changing text style and font size Align text in a cell Highlight text 	1. Group activity on formatting a spreadsheet in LibreOffice Calc 2. Group activity on performing basic calculations in LibreOffice Calc.	02

Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Duration (25 hrs)
Describe the concept of entrepreneurship and the types and roles and functions entrepreneur	 Entrepreneurship and entrepreneur Characteristics of entrepreneurship Entrepreneurship-art and science Qualities of a successful entrepreneur Types of entrepreneurs Roles and functions of an entrepreneur What motivates an entrepreneur Identifying opportunities and risktaking Startups 	 Group discussion on the topic "An entrepreneur is not born but created". Conducting a classroom quiz on various aspects of entrepreneurship. Chart preparation on types of entrepreneurs Brainstorming activity on What motivates an entrepreneur 	10
2. Identify the barriers to entrepreneurship	 Barriers to entrepreneurship Environmental barriers No or faulty business plan Personal barriers 	 Group discussion about "What we fear about entrepreneurship" Activity on taking an interview of an entrepreneur. 	05
3. Identify the attitude that make an entrepreneur successful	Entrepreneurial attitude	Group activity on identifying entrepreneurial attitude.	05
4. Demonstrate the knowledge of entrepreneurial attitude and competencies	 Entrepreneurial competencies Decisiveness Initiative Interpersonal skills-positive attitude, stress management Perseverance Organisational skills-time management, goal setting, efficiency, managing quality. 	 Playing games, such as "Who am I". Brainstorming a business ideas Group practice on "Best out of Waste" Group discussion on the topic of "Let's grow together" Group activity on listing stress and methods to deal with it like Yoga, deep breathing exercises, etc. 	05
	Total	Group activity on time management	25

UNIT 5: GREEN SKILLS-IV			
Learning Outcome	Theory (05 hrs)	Practical (10 hrs)	Duration (15 hrs)
Identify the benefits of the green jobs	 Green jobs Benefits of green jobs Green jobs in different sectors: Agriculture Transportation Water conservation Solar and wind energy Eco-tourism Building and construction Solid waste management Appropriate technology 	 Group discussion on the importance of green job. Chart preparation on green jobs in different sectors. 	08
2. State the importance of green jobs	 Importance of green jobs in Limiting greenhouse gas emissions Minimiing waste and pollution Protecting and restoring ecosystems Adapting to the effects of climate change 	 Preparing posters on green jobs. Group activity on tree plantation. Brainstorming different ways of minimising waste and pollution 	07
Total			

Part B-Vocational Skills

S. No.	Units	Duration (Hrs)
1.	Unit 1: Embellishment Techniques	35
2.	Unit 2: Finishing, Packing and Quality Management	40
3.	Unit 3: Jute Products: Bags and Folders	25
4.	Unit 4: Jute Products: Dolls and their variations	25
5.	Unit 5: Working in a team	20
6.	Unit 6: Complying with work place requirements	20
	Total	165

Learning Outcome	Theory (15 Hrs)	Practical (20 Hrs)	Duration (35 Hrs)
Describe different embellishment techniques for jute products	 Introduction to embellishment techniques and related terminologies Types of embellishment Importance of embellishment Factors affecting embellishment Tools and Materials used for embellishment 	 List and categorize different jute products. Make a poster on any one embellishment technique out of: embroidery, printing, painting, crochet, Prepare a list of Indian embellishment techniques with photographs 	10
2. Demonstrate Jute dyeing and printing techniques	1. Introduction to various embellishment techniques; • Printing • Tie-dye and other dyeing techniques for jute • Embroidery • Patchwork/appliqué • Use of different trims including metal and wooden beads	 Create samples using different embellishment techniques present a PPT on any one chosen embellishment technique followed by discussion market survey of trims and embellishment accessories 	15
3. Explain Care and maintenance of embellished jute products	Care and maintenance of embellished fabrics and products Tips for washing Tips for storing tips for stain removal		10
	Total		35

UNIT 2: FINISHING, PACKING AND QUALITY MANAGEMENT			
Learning Outcome	Theory (15 Hrs)	Practical (25 Hrs)	Duration (40 Hrs)
Explain Finishing and packing of jute products	 Finishing of jute products Packing of jute products 	Identification of finishing tools and packing materials	8

Procedures (SOP). Total			
4. Explain Inspection of Jute Products	 Inspection and its methods Visual Inspection as a measure of quality control 	 Demonstrate raw material inspection as per the specification sheet. Inspect jute products for look, shape, size and color as per design or as per specified order. Visit to jute industry for orientation and demonstration of Standard Operating 	10
3. Describe factors affecting quality of jute products	 Factors affecting handicraft and handloom product quality Identification of defects in products Raw Material Defects Cutting defects 	 Inspect a sample of jute table mat of jute fabric, lining, reinforcement material, chain, button, hook, etc. Testing of color Fastness properties dyed jute fabrics. 	10
2. Describe Quality Standards	 Introduction to quality and standards Importance of quality Quality assessment and quality control Explain TQM (Total Quality Management) and AQL (Acceptable Quality Limits) Industry quality specification and standards 	 Prepare a report on importance of quality in jute production industry Prepare a PowerPoint on the difference between specifications and standards 	12

UNIT 3: JUTE PRODUCTS: BAGS AND FOLDERS				
Learning Outcome	Theory (10 Hrs)	Practical (15 Hrs)	Duration (25 Hrs)	
Explain, Designing and product details of jute bags and folders	 Designing of jute bags Selection of jute fabrics for the product Arrangement of selected materials 	Design jute bags by following the process	8	

2.	Describe Construction of Jute bag	 Product spec sheet, suitable stitch type and methods Thread, needle and other material Pattern making and cutting of the fabric Construction of jute bags, proportionate size and finishing 		Observe and identify different types of stitches used in stitching of jute products and prepare samples using different stitches Assemble the requirements and the construct the Jute bags	7
3.	Demonstrate Construction of Jute Folder	 Design and fabric selection Sheet work, pattern making and cutting of the fabric Construction of Jute folders Proportionate size and finishing 	1.	Design jute folders by following the process	10
Total					25

UNIT 4: JUTE PRODUCTS: DOLLS AND THEIR VARIATIONATIONS				
Learning Outcome	Theory (10 Hrs)	Practical (15 Hrs)	Duration (25 Hrs)	
Explain designing and product details of jute dolls	 Design and fabric selection Arrangement of selected materials Product spec sheet, suitable stitch type and methods Selection of suitable thread, needle and other material 	Design development jute doll with attractive color combinations according to specification sheet.	10	
2. Describe Construction of jute dolls	 Pattern making and cutting of the fabric Construction of jute dolls Proportionate size and finishing of jute dolls 	Assemble the requirements and construct a jute doll.	05	

3. Explain jute doll variations	cutting of the fabric for	Assemble the requirements and create jute doll variations	10
Total			25

UNIT 5: WORKING IN A TEAM			
Learning Outcome	Theory (10 Hrs)	Practical (15 Hrs)	Duration (25 Hrs)
Describe workplace ethics	 Understanding own roles and duties Performing roles effectively at workplace 	Prepare a chart on role and duties of Jute Product Artisan.	05
2. Explain communication at workplace	 Role of effective communication at workplace Lines of communications, authority and reporting procedures at work place. Coordination with team members and colleagues 	Make a short report of communication with higher authority	08
	Adapting the changing work situation		
3. Explain Efficiency thought innovation	 Importance of complying with written instructions Improving the existing techniques to increase process efficiency 	1. Practice constructing / assembling jute product components 2. Suggest creative alternates for making product with minimum waste.	07
	Total		20

	Learning Outcome	Theory Practical (10 Hrs) (10 Hrs)	Duration (20 Hrs)
1.	Describe Workplace Standards and Eco-Practices	 Importance of having an ethical and value base approach to management Benefits to company and workers due to practice of these procedures Importance of having an and prepare a report about ethical and value based approach to management. 	ch 05
2.	Explain Collaborative and Interpersonal Skills at Workplace	 Importance of collaboration and interpersonal skills in the workplace. Behaviours that promote trust, empathy, and professional communication. Effective collaborative communication strategies and professional etiquette. The role of language proficiency in enhancing workplace communication and professionalism. 	cies.
3.	Demonstrate organizational standards	importance of setting personal and demonstrate wor in a team for production of a junction and product management tools to importance of setting demonstrate wor in a team for production of a junction of	king 05
		improve workplace productivity 3. personal and prepare reporsion on Standard Operating Procedures time and relationship management 4. self-evaluation and it's role in unorganised sectors for personal growth	•
		Total	20

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 Craft mela, Exhibitions, Market, Workshops, relevant clusters, industries and small units to observe the following: Location, Site, Office building, Store, Handloom yard, Packing area,

Handicraft production area, Cutting area and Industrial machines. During the visit, students should obtain the following information from the owner or the supervisor of the industry:

- 1. Area under industry and its layout
- 2. Departments in industry
- 3. Work culture and environment of various departments
- 4. Various cutting, sewing, pattern making and assembling machines
- 5. Different buyers, the company deals with
- 6. Product range of the industry
- 7. Understand time and action calendar
- 8. Manufacture, export, import, sale procedure
- 9. Manpower engaged
- 10. Total expenditure of industry
- 11. Total annual income
- 12. Profit/Loss (Annual)
- 13. Any other information

7. LIST OF EQUIPMENT AND MATERIALS

 ${f T}$ he 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

- 1. Charts of handling equipment's
- 2. Charts of different process related to jute products
- 3. Samples of jute products
- 4. Equipments used for developing jute products
- 5. Samples of jute fibre and yarn
- 6. Different jute fabric swatches

B. Equipment's to be seen during Field Visit

- 1. Organizational Chart of the Jute industry/workshop
- 2. Spinning Machine
- 3. Handloom/Power loom
- 4. Any other automatic and semi-automatic equipment used on site.
- 5. Safety and security equipment's on site
 - Fire extinguisher
 - Security cameras
 - LCD screens

- Safety sign boards
- Personal protective equipment's (PPE) like gloves, helmets, jackets, harness etc.
- Locking systems
- 6. Housekeeping equipment's on site
 - Vacuum cleaner
 - Mops
 - Cleaning chemicals
 - Cleaning Robots
 - Air purifiers
 - Filtering machines
 - Spill Absorbents
- 7. Waste disposal equipment's such as scrap bins, recyclers, waste processing machines etc
- 8. 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

S. No.	Item	Quantity for a batch of 40 Students	Tentative Rate(Rs.)	Tentative price (Rs.)
1.	Scissors	20	30	600
2.	Rotary Cutter	20	1000	20,000
3.	Seam Ripper	40	25	1,000
4.	Pinking Shears	5	200	1,000
5.	Meter Stick/Yardstick	20	150	3,000
6.	L-square	10	200	2,000
7.	Crochet Needle Set	10	300	3,000
8.	Handloom Set Up	5	1000	5,000
9.	Jute Fibre Straightening Machine	1	1,50,000	1,50,000
10.	Iron	10	1000	10,000
11.	Iron Table	5	1500	7,500
12.	Dyeing Set Up Equipment	5	12,000	60,000

35. 36.	Fabric Glue Trims and Laces	10	100	2,000
34.	Paper	5	50	250
33.	Needle Threader Non-woven Non-fusible Backing	15	10	150
32.	Pick Glass	5	200	1,000
31.	Tracing Paper	40	5	200
30.	Pattern Making Paper	40	10	400
29.	mirrors, beads, etc.	20	100	2000
28.	Tailor's Chalk Embellishment Material Sequins,	15	20	300
27.	Pins and Pin Cushion	10	20	200
26.	Needles	20	10	200
25.	Measuring Tape	20	10	200
24.	Thread	20	10	200
23.	Basic Stationery Set	20	100	1,000
22.	Yarn Spools (Setof3)	10	1000	10,000
21.	Jute Fabrics(meter)	50	100	5,000
20.	Jute Fibre (per kg)	40	80	3,200
19.	Dyes(kg)	15	300	4,500
18.	Furniture (Working Table, Stools, etc.)	-	-	1,50,000
17.	Laboratory Fabric Streamer	1	1,00,000	1,00,000
16.	Electric Stove	2	30,000	60,000
15.	Jute Article Finishing Machine	2	20,000	40,000
14.	Jute Fabric Cutting Machine	5	10,000	1,00,000
13.	Printing Set Up Equipment	5	16,000	80,000

8. VOCATIONAL TEACHER'S/TRAINER'S QUALIFICATION AND GUIDELINES

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:

S. No.	Qualification	Minimum Competencies	Age Limit
1.	Post-graduation in Textiles & Clothing or allied area from a recognized Institute/University, with at least 1 year work experience in relevant area.	Effective communication skills (oral and written) Basic computing skills	As per the norms applicable. 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 Rashtriya Madhyamik Shiksha Abhiyan (RMSA). 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/she 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 the 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 XI 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.

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