

LEARNING OUTCOME BASED VOCATIONAL CURRICULUM

JOB ROLE: Construction Painter and Decorator

(QUALIFICATION PACK: Ref. Id. CON/QP-0503)

SECTOR: Construction

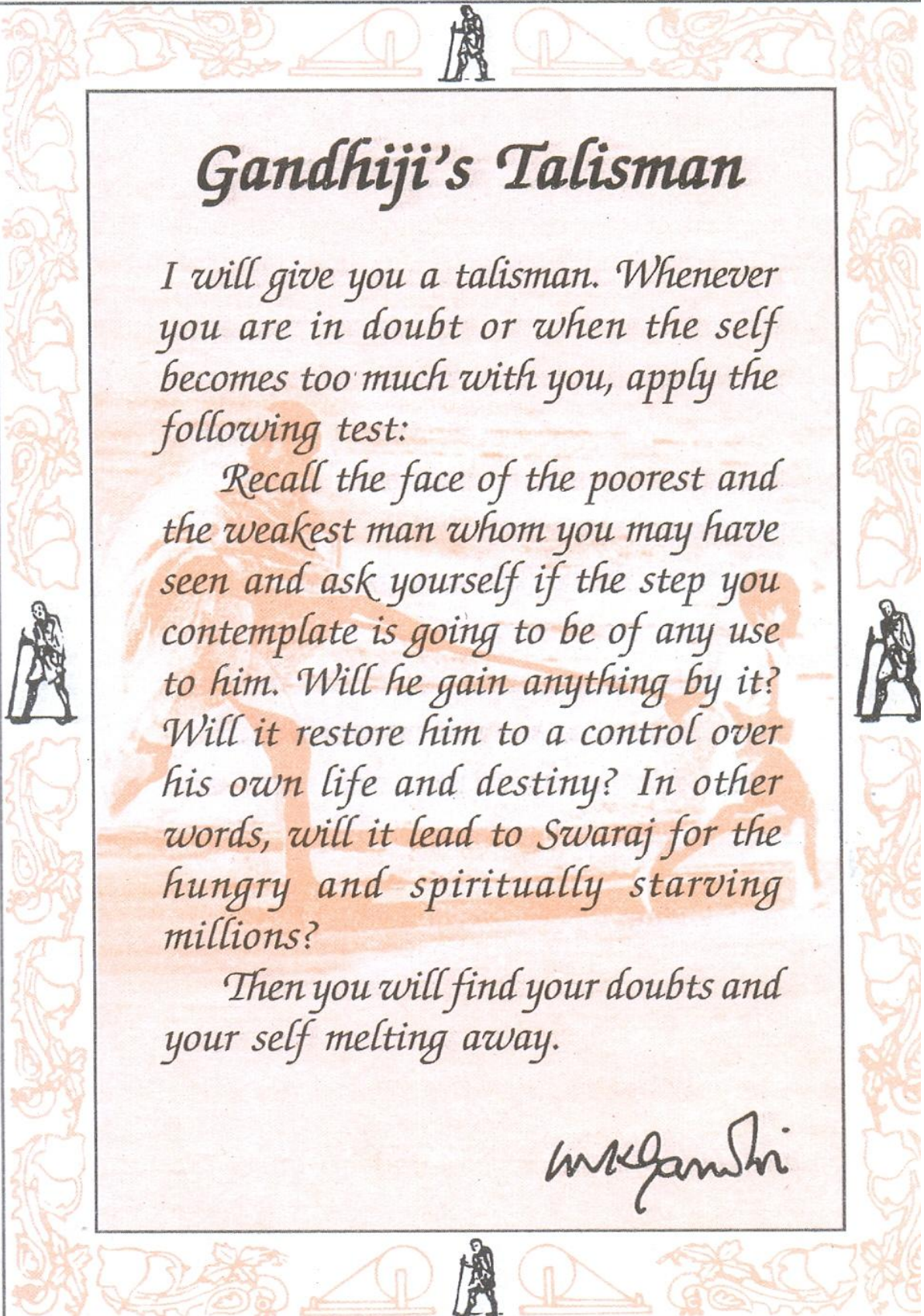
Classes 11 and 12



PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION

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

<http://www.psscive.ac.in>



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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Construction- Painter and Decorator

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FOREWORD

The Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), a constituent unit of National Council of Educational Research and Training (NCERT) is spearheading the efforts of developing learning outcome based vocational curriculum and courseware aimed at integrating both vocational and general qualifications to open pathways of career progression for students. It is a part of Vocationalisation of Education under *Samagra Shiksha*. The PSS Central Institute of Vocational Education (PSSCIVE) is developing curricula under the project approved by the Project Approval Board (PAB) of *Samagra Shiksha* of Ministry of Human Resource Development (MHRD), Govt. of India. The main purpose of the learning outcome based vocational curriculum is to bring about improvement in 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 vocational curriculum as part of the vocational training package for the job role of **Construction Painter and Decorator (CON/QP-0503)**. The curriculum has been developed for the higher secondary students of vocational education and is aligned to the National Occupation Standards (NOSs) of a job role identified and approved under the Qualification Framework (NSQF).

The curriculum aims to provide children with employability and vocational skills to support occupational mobility and lifelong learning. It will help them to acquire specific occupational skills that meet employers' immediate needs. The teaching process is to be performed through the 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.

HRUSHIKESH SENAPATY
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 are 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 fulfil the growing aspirations of our youth and the demand of skilled human resource, the Ministry of Human Resource Development (MHRD), Government of India introduced the revised Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education in 2012 with the aim 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. The scheme was subsumed in *Samagra Shiksha* in 2018 along with other schemes of school education. For spearheading the Vocationalisation Education, the PSS Central Institute of Vocational Education (PSSCIVE) was entrusted the responsibility to develop learning outcome based vocational curriculum, student workbooks, teacher handbooks and e-learning materials for the 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 fulfil the needs of the society and the world of work. In order to honour its commitment to the nation, the PSSCIVE has initiated the work on developing learning outcome based vocational curriculum with the involvement of faculty members and leading experts in respective fields. It is being done through the concerted efforts of leading academicians, professionals, policy makers, partner institutions, Vocational Education and Training experts, industry representatives, and teachers. The expert group through a series of consultations, working group meetings and use of reference materials develops a National Curriculum. Currently, the Institute is working on developing curricula and courseware for over 50 job roles in various sectors, besides the curricula developed for 100 job roles.

We extend our gratitude to all the contributors for selflessly sharing their precious knowledge, acclaimed expertise, valuable time and positively responding to our request for development of curriculum. We are grateful to MHRD and NCERT for the financial support and cooperation in realising the objective of providing learning outcome based vocational curriculum and courseware to the States and other stakeholders under the PAB (Project Approval Board) approved project of *Samagra Shiksha* of Ministry of Human Resource Development (MHRD), Government of India.

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.

Dr. RAJESH P. KHAMBAYAT
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 Human Resource Development (MHRD), Government of India for the financial support to the project for development of curricula.

We are grateful to the Director, National Council of Educational Research & Training (NCERT) for his support and guidance. We also acknowledge the contributions of our colleagues at the Technical Support Group of Samagra Shiksha, MHRD, National Skill Development Agency (NSDA) and National Skill Development Corporation (NSDC) and Construction Skill Development Council of India (CSDCI) for their academic support and cooperation.

We are grateful to the expert contributors for their earnest effort and contributions in the development of this learning outcome based vocational curriculum. Their names are acknowledged in the list of contributors.

We are also grateful to Dr. Saurabh Prakash, Professor and Course Coordinator, Department of Engineering and Technology, PSSCIVE, Bhopal for her contributions.

The contributions made by Dr. Vinay Swarup Mehrotra, Professor and Head, Department of Agriculture and Animal Husbandry and Curriculum Development and Evaluation Centre (CDEC), Dr. Vipin Kumar Jain, Associate Professor and Head, Department of Humanities, Science, Education and Research and Dr. Dipak D. Shudhalwar, Associate Professor and Head, Department of Engineering and Technology, PSSCIVE in development of the curriculum for the employability skills are duly acknowledged.

The contribution by Dr. Satyendra Thakur, Consultant and Er. Kuber Singh, Consultant, Department of Engineering and Technology, PSSCIVE, Bhopal is acknowledged. The assistance provided by Vinod K. Soni, Computer Operator Gr.II, Department of Engineering and Technology, PSSCIVE, Bhopal for layout, design and composing of the material is duly acknowledged.

PSSCIVE Team

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1. COURSE OVERVIEW

COURSE TITLE: Construction - Construction Painter and Decorator

The present curriculum of "Construction Painter and Decorator" is mapped to the qualification pack having reference ID: CON/QP0503, version 02 (NSQF Level 4) of Construction Skill Development Council of India (CSDCI). This course fulfils the needs of the students willing to learn activities relating to the Construction Painter and Decorator job role. Any student/ entrepreneur willing to start a paint showroom/shop or a painting contractor firm can acquire the desired competencies with the help of this curriculum.

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

- Identify the scope, role, responsibilities and career options for a construction painter and decorator.
- Identify the principal components of a computer system.
- Identify and control hazards in the workplace that pose a danger or threat to their safety or health, or that of others.
- Demonstrate the 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.
- Apply paints on various finished masonry surface.
- Apply paint on metallic/structural steel surfaces.
- Apply paints, varnish and polish on wooden surfaces such as wooden windows, partition, panels etc.
- Carry out water proofing on the required surface prior to start any painting work.
- Perform interior and exterior designer work related to painting as per the specified design.
- Carry out minor repair of various painting faults.
- Calculate total cost of painting work for a particular project.
- Communicate effectively with the customers.

COURSE REQUIREMENTS: The learner should have the basic knowledge of science.

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

COURSE DURATION: **600 hrs**

Class 11 : 300 hrs

Class 12 : 300 hrs

Total : 600 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 Class 11 and 12 opting for vocational subject along with general education subjects. The unit-wise distribution of hours and marks for Class 11 is as follows:

CLASS 11			
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	10
	Unit 2 : Self-management Skills-III	25	
	Unit 3 : Information and Communication Technology Skills-III	20	
	Unit 4 : Entrepreneurial Skills-III	25	
	Unit 5 : Green Skills-III	15	
		110	10
Part B	Vocational Skills		
	Unit 1: Introduction of paintings	20	40
	Unit 2: Painting tools and their maintenance	40	
	Unit 3: Painting procedure	60	
	Unit 4: Metal and Wood painting	45	
		165	40
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
	Grand Total	300	100

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

CLASS 12			
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	20	10
	Unit 2 : Self-management Skills-IV	10	
	Unit 3 : Information and Communication Technology Skills-IV	20	
	Unit 4 : Entrepreneurial Skills-IV	15	
	Unit 5 : Green Skills-IV	10	

		110	10
Part B	Vocational Skills		
	Unit 1: Waterproofing	40	30
	Unit 2: Painting aesthetics and software application	20	
	Unit 3: Features of designing and decoration	65	
	Unit 4: Allied features of painting	40	
		165	30
Part C	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
	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, 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

S.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)	3	2	2	13
2.	Understanding – (Comprehension – to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase, or interpret	2	3	2	14

	information)				
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	2	1	07
4.	High Order Thinking Skills – (Analysis & Synthesis – Classify, compare, contrast, or differentiate between different pieces of information; Organize and/ or integrate unique pieces of information from a variety of sources)	0	2	0	04
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	5x1=5	10x2=20	5x3=15	40 (20 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 and 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.

CONTINUOUS AND COMPREHENSIVE EVALUATION

Continuous and Comprehensive Evaluation (CCE) refers to a system of school-based evaluation of students that covers all aspects of student's development. In this scheme, the term 'continuous' is meant to emphasize that evaluation of identified aspects of students 'growth and development' is a continuous process rather than an event, built into the total teaching-learning process and spread over the entire span of academic session. The second term 'comprehensive' means that the scheme attempts to cover both the scholastic and the co-scholastic aspects of students' growth and development. For details, the CCE manual of Central Board of Secondary Education (CBSE) or the guidelines issued by the State Boards on the procedure for CCE should be followed by the Institutions.

5. UNIT CONTENTS

CLASS 11

Part A: Employability Skills

S.No.	Units	Duration (Hrs)
1.	Unit 1: Communication Skills - III	25
2.	Unit 2: Self-management Skills - III	25
3.	Unit 3: Information and Communication Technology Skills- III	20
4.	Unit 4: Entrepreneurial Skills - III	25
5.	Unit 5: Green Skills - III	15
Total		110

SUB-UNIT 1: COMMUNICATION SKILL - III

Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Total Duration (25 Hrs)
1. Demonstrate knowledge of various methods of communication	1. Methods of communication - Verbal - Non-verbal - Visual	1. Writing pros and cons of written, verbal and non-verbal communication 2. Listing do's and don'ts for avoiding common body language mistakes	10
2. Identify specific communication styles	1. Communication styles- assertive, aggressive, passive-aggressive, submissive, etc.	1. Observing and sharing communication styles of friends, teachers and family members and adapting the best practices	10

		2. Role plays on communication styles.	
3. Demonstrate basic writing skills	1. Writing skills to the following: <ul style="list-style-type: none"> • Sentence • Phrase • Kinds of Sentences • Parts of Sentence • Parts of Speech • Articles • Construction of a Paragraph 	1. Demonstration and practice of writing sentences and paragraphs on topics related to the subject	05

SUB-UNIT 2: SELF-MANAGEMENT - III

Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Total Duration (25 Hrs)
1. Demonstrate impressive appearance and grooming	1. Describe the importance of dressing appropriately, looking decent and positive body language 2. Describe the term grooming 3. Prepare a personal grooming checklist 4. Describe the techniques of self-exploration	1. Demonstration of impressive appearance and groomed personality 2. Demonstration of the ability to self- explore	07
2. Demonstrate team work skills	1. Describe the important factors that influence in team building 2. Describe factors influencing team work	1. Group discussion on qualities of a good team 2. Group discussion on strategies that are adopted for team building and team work	08
3. Apply time management strategies and techniques	1. Meaning and importance of time management – setting and prioritizing goals, creating a schedule, making lists of tasks, balancing work and leisure, using different optimization tools to break large tasks into smaller tasks.	1. Game on time management 2. Checklist preparation 3. To-do-list preparation	10

SUB-UNIT 3: INFORMATION & COMMUNICATION TECHNOLOGY - III

Learning Outcome	Theory (08 hrs)	Practical (12 hrs)	Total Duration (20 Hrs)
1. Create a document on word	1. Introduction to word processing.	1. Demonstration and practice of the	10

processor	<ol style="list-style-type: none"> 2. Software packages for word processing. 3. Opening and exiting the word processor. 4. Creating a document 	following: <ul style="list-style-type: none"> • Listing the features of word processing • Listing the software packages for word processing • Opening and exit the word processor • Creating a document 	
2. Edit, save and print a document in word processor	<ol style="list-style-type: none"> 1. Editing text 2. Wrapping and aligning the text 3. Font size, type and face. 4. Header and Footer 5. Auto correct 6. Numbering and bullet 7. Creating table 8. Find and replace 9. Page numbering. 10. Printing document. 11. Saving a document in various formats. 	<ol style="list-style-type: none"> 1. Demonstration and practising the following: <ul style="list-style-type: none"> • Editing the text • Word wrapping and alignment • Changing font type, size and face • Inserting header and footer • Removing header and footer 2. Using autocorrect option 3. Insert page numbers and bullet 4. Save and print a document 	10

SUB-UNIT 4: ENTREPRENEURSHIP DEVELOPMENT - III

Learning Outcome	Theory (10 hrs)	Practical (15 hrs)	Total Duration (25 Hrs)
1. Describe the significance of entrepreneurial values and attitude	<ol style="list-style-type: none"> 1. Values in general and entrepreneurial values 2. Entrepreneurial value orientation with respect to innovativeness, independence, outstanding performance and respect for work 	<ol style="list-style-type: none"> 1. Listing of entrepreneurial values by the students. 2. Group work on identification of entrepreneurial values and their roles after listing or reading 2-3 stories of successful entrepreneur 3. Exhibiting entrepreneurial values in Ice breaking, rapport building, group work and home assignments 	10
2. Demonstrate the knowledge of attitudinal changes required to become	<ol style="list-style-type: none"> 1. Attitudes in general and entrepreneurial attitudes 2. Using imagination/ 	<ol style="list-style-type: none"> 1. Preparing a list of factors that influence attitude in general and entrepreneurial 	

an entrepreneur	intuition 3. Tendency to take moderate risk 4. Enjoying freedom of expression and action 5. Looking for economic opportunities 6. Believing that we can change the environment 7. Analyzing situation and planning action 8. Involving in activity	attitude 2. Demonstrating and identifying own entrepreneurial attitudes during the following micro lab activities like thematic appreciation test 3. Preparing a short write-up on "who am I" 4. Take up a product and suggest how its features can be improved 5. Group activity for suggesting brand names, names of enterprises, etc.	15
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SUB-UNIT 5: GREEN SKILLS - III

Learning Outcome	Theory (07 hrs)	Practical (08 hrs)	Total Duration (15 Hrs)
1. Describe importance of main sector of green economy	1. Main sectors of green economy- E-waste management, green transportation, renewal energy, green construction, water management 2. Policy initiatives for greening economy in India	1. Preparing a poster on any one of the sectors of green economy 2. Writing a two-page essay on important initiatives taken in India for promoting green economy	08
2. Describe the major green Sectors/Areas and the role of various stakeholder in green economy	1. Stakeholders in green economy 2. Role of government and private agencies in greening cities, buildings, tourism, industry, transport, renewable energy, waste management, agriculture, water, forests and fisheries	1. Preparing posters on green Sectors/Areas: cities, buildings, tourism, industry, transport, renewable energy, waste management, agriculture, water, forests and fisheries	07
Total	45	65	110

Part B: Vocational Skills

S. No.	Units	Duration (Hrs.)
1.	Unit 1: Introduction to construction paintings	20
2.	Unit 2: Painting tools and their maintenance	40
3.	Unit 3: Painting procedure	60
4.	Unit 4: Metal and Wood painting	45
	Total	165

UNIT 1: INTRODUCTION TO CONSTRUCTION PAINTINGS

Learning Outcome	Theory (08 Hrs)	Practical (12 Hrs)	Duration (20 Hrs)
1. Describe the job role of construction painter and decorator	<ul style="list-style-type: none"> Introduction to construction painting Painting as a career, role and responsibilities of construction painter and decorator 	<ul style="list-style-type: none"> List the feature of construction painting Write the role of a painter in construction industry Draw a chart of career progression of painting occupation 	05
2. Discuss the primary and secondary colours	<ul style="list-style-type: none"> Basics of Paint - knowledge about primary and secondary colours - need for painting 	<ul style="list-style-type: none"> Identify the primary and secondary colours List the advantages of painting 	04
3. Identify the different painting materials and colour shades	<ul style="list-style-type: none"> Painting material - Types of material (mixing of colours on site/manually) Properties of painting material Mixing procedure of painting materials 	<ul style="list-style-type: none"> Visit to the local market and collect colour catalogue, chart of specification of different paintings materials and make a list of different paint manufacturers with Indian standard(BIS) Identify the different types of painting materials Reading of different colour shades and noting the respective colour codes Demonstrate the mixing procedure of painting materials Demonstrate the mixing procedure of different colours to obtain required shade 	07
4. Discuss the features of Interior and Exterior paints	<ul style="list-style-type: none"> Introduction to Interior and Exterior paints Difference between Interior and Exterior paints Specifications of Interior and Exterior paints 	<ul style="list-style-type: none"> Identify the Interior and Exterior paints List the specifications (also manufacturer's specification) of Interior and Exterior paints Identify the different types of colours used in 	04

		school and home	
		Total	20

UNIT 2: PAINTING TOOLS AND THEIR MAINTENANCE

Learning Outcome	Theory (16 Hrs)	Practical (24 Hrs)	Duration (40Hrs)
1. Identify the different painting tools with its application	<ul style="list-style-type: none"> • Introduction to hand tools and power tools used for painting work • Specification of Painting Tools – Types, make and size • Features of various painting tools 	<ul style="list-style-type: none"> • Identify the different types of painting tools such as brushes, rollers, scrapers, sand paper , sprayer etc • Draw the images of painting tools • Demonstrate the use of various painting tools 	08
2. Explain and demonstrate the techniques of cleaning and maintaining the painting tools	<ul style="list-style-type: none"> • Importance of cleaning and maintenance of painting tools • Techniques of cleaning painting tools • Maintenance procedure of painting tools 	<ul style="list-style-type: none"> • Make a list of materials and tools used for cleaning of painting tools • Demonstrate the cleaning procedure of painting tools such as brushes, rollers, scrapers, sprayer etc • Demonstrate the maintenance procedure of painting tools such as brushes, rollers, scrapers, sprayer etc 	08
3. Describe and identify different types of Personal Protective Equipment (PPE) and other safety measures regarding the construction sites	<ul style="list-style-type: none"> • Introduction to Environment, Health and Safety (EHS) • Role of Personal Protective Equipment (PPE) such as safety gloves, goggles, dust mask, safety helmet, safety shoes, safety harness, apron, reflective jacket etc • State the different types of fire extinguisher 	<ul style="list-style-type: none"> • List the different types of PPE used in painting works • Demonstrate the use of PPE during painting work • Draw the sketches of PPE • Make a list of flammable materials/chemicals used in painting work • Demonstrate the use of different types of fire extinguisher • Demonstrate the procedure of waste disposal and housekeeping 	08
4. Demonstrate how to erect scaffolding	<ul style="list-style-type: none"> • Requirements of Scaffolding for the painting job (both for interior and exterior work) • Different types of scaffolding (conventional and system) 	<ul style="list-style-type: none"> • Identify the different types of scaffolding • Identify the components of scaffolding • Erect the scaffolding up to the height of 3.6 meters • Visit to the 	16

		construction site and identify different types of scaffolding <ul style="list-style-type: none"> • Draw the sketch showing different components of scaffolding 	
		Total	40

UNIT 3: PAINTING PROCEDURE

Learning Outcome	Theory (20 Hrs)	Practical (40 Hrs)	Duration (60Hrs)
1. Discuss the procedure involve in site preparation prior to initiate the required painting work	<ul style="list-style-type: none"> • Plan for site preparation • Steps involved in site preparation such as shifting, moving, protecting assets kept in the premises • Covering/protecting of floors using suitable materials such as masking tape, plastic sheets, clothes etc 	<ul style="list-style-type: none"> • Demonstrate the procedure of shifting, moving, protecting the assets within the working area • Demonstrate the procedure of covering and protecting the floor of work area 	10
2. Describe the surface evaluation method for masonry surfaces	<ul style="list-style-type: none"> • Surface evaluation of newly prepared masonry surfaces (plaster finished surface) • Surface evaluation of old painted masonry surfaces • Different types of defects in painting/surface • Causes of different types of defects related to painting work 	<ul style="list-style-type: none"> • Calculate total surface area to be painted • Identification of defects in painting/surface 	12
3. Discuss the preparatory activities required for starting the painting work	<ul style="list-style-type: none"> • Different methods for surface preparation • Differentiate between old and new surface • Tools used for surface preparation • Checks to determine surface preparedness for starting the work of painting • Different materials such as Plaster of Paris (POP), white cement, putty etc used for surface preparation 	<ul style="list-style-type: none"> • Identify different types of tools and materials used for surface preparation • Demonstrate the procedure for surface preparation (old and new surface) 	10

4. Explain the use of undercoat	<ul style="list-style-type: none"> • Role of undercoat and their needs • Types of undercoats such as oil based, latex based primer • Application procedure of undercoats • Precautions during the application of undercoats 	<ul style="list-style-type: none"> • Identify the different types of materials used as undercoat • Demonstrate the procedure of undercoating 	08
5. Describe the procedure of application of top paint coat	<ul style="list-style-type: none"> • Procedure of application of top coat • Tools used in top coat application • Precaution during top coat or finish coat application 	<ul style="list-style-type: none"> • Demonstrate the procedure for application of top coat/ paint coat • List the precaution taken during top coat or finish coat application • Demonstrate the various checks conducted prior to, during and after the painting work to ensure its quality 	20
		Total	60

UNIT 4: METAL AND WOOD PAINTING

Learning Outcome	Theory (10 Hrs)	Practical (35 Hrs)	Duration (45 Hrs)
1. Describe the process of metal painting to achieve required finished surface	<ul style="list-style-type: none"> • Role of Metal finishes • Methods of surface preparation • Interior and exterior metal finishes • Material required/types of metal paint • Precautions taken during work 	<ul style="list-style-type: none"> • Identification of defects and repair using suitable methods • Identification of metal (mild Steel, structural steel) to be painted • Calculate rough estimate of paint and other painting material • Demonstrate preparation of metal surface • Selection/ preparation of paints • Demonstrate the application of paints • List the precaution should be taken during work • Demonstrate the housekeeping activities (cleaning of site, waste disposal, tools maintenance and cleaning and storing of tools and materials) 	20
2. Describe the process of wood	<ul style="list-style-type: none"> • Importance of painting on wooden surface 	<ul style="list-style-type: none"> • Identify different types of wood 	25

painting to achieve required finished surface	<ul style="list-style-type: none"> • Types of wood • Different type of wood finishes • Methods of surface preparation • Different procedures for wooden surface painting • Material and tools required/ types of paint, varnish, Touchwood, Pack solvent and water based wood finishes, spray application, • Precautions taken during work 	<ul style="list-style-type: none"> • Identification of defects and repair using suitable methods • Calculate rough estimate of paint and other painting material • Demonstrate preparation of wooden Surface • Carry out preparation of paint(colorant, base colour selection, paint mixing, viscosity adjustment) • Demonstrate the application of paints/polish • Carry out the application of varnish as per manufacture's guidelines • List the precaution should be taken during work • Demonstrate the housekeeping activities (cleaning of site, waste disposal, tools maintenance and cleaning and storing of tools and materials) 	
		Total	45

CLASS 12

Part A: Employability Skills

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills – IV	25
2.	Unit 2: Self-management Skills – IV	25
3.	Unit 3: Basic ICT Skills – IV	20
4.	Unit 4: Entrepreneurial Skills – IV	25
5.	Unit 5: Green Skills – IV	15
	Total	110

UNIT 1: COMMUNICATION SKILLS – IV			
Learning Outcome	Theory (10 Hours)	Practical (15 Hours)	25 Hrs

1. Describe the steps to active listening skills	<ul style="list-style-type: none"> • Importance of active listening at workplace • Steps to active listening. 	<ul style="list-style-type: none"> • Demonstration of the key aspects of becoming active listener. • Preparing posters of steps for active listening. 	10
2. Demonstrate basic writing skills	<ul style="list-style-type: none"> • Writing skills to the following: • Sentence • Phrase • Kinds of Sentences • Parts of Sentence • Parts of Speech • Articles • Construction of a Paragraph 	<ul style="list-style-type: none"> • Demonstration and practice of writing sentences and paragraphs on topics related to the subject. 	15
Total Duration in Hours			25

UNIT 2: SELF-MANAGEMENT SKILLS – IV			
Learning Outcome	Theory (10 Hours)	Practical (15 Hours)	25 Hrs
1. Describe the various factors influencing self-motivation	<ul style="list-style-type: none"> • Finding and listing motives (needs and desires); • Finding sources of motivation and inspiration (music, books, activities); expansive thoughts; living fully in the present moment; dreaming big. 	<ul style="list-style-type: none"> • Group discussion on identifying needs and desire. • Discussion on sources of motivation and inspiration. 	10
2. Describe the basic personality traits, types and disorders	<ul style="list-style-type: none"> • Describe the meaning of personality. • Describe how personality influences others. • Describe basic personality traits. • Describe common personality disorders- paranoid, antisocial, schizoid, borderline, narcissistic, avoidant, dependent and obsessive. 	<ul style="list-style-type: none"> • Demonstrate the knowledge of different personality types. 	
Total Duration in Hours			25

UNIT 3: BASIC INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS – IV			
Learning Outcome	Theory (06 Hours)	Practical (14 Hours)	20 Hrs
1. Perform tabulation using spreadsheet application	<ul style="list-style-type: none"> • Introduction to spreadsheet application, • Spreadsheet applications, • Creating a new worksheet, • Opening workbook 	<ul style="list-style-type: none"> • Demonstration and practice on the following: • Introduction to the spreadsheet application, 	10

	<ul style="list-style-type: none"> and entering text, • Resizing fonts and styles, • Copying and moving, • Filter and sorting, • Formulas and functions, • Password protection, • Printing a spreadsheet, • Saving a spreadsheet in various formats. 	<ul style="list-style-type: none"> • Listing the spreadsheet applications, • Creating a new worksheet, • Opening the workbook and enter text, • Resizing fonts and styles, • Copying and move the cell data, • Sorting and Filter the data, • Applying elementary formulas and functions, • Protecting the spreadsheet with password, • Printing a spreadsheet, • Saving the spreadsheet in various formats. 	
2. Prepare presentation using presentation application	<ul style="list-style-type: none"> • Introduction to presentation, • Software packages for presentation, • Creating a new presentation, • Adding a slide, • Deleting a slide, • Entering and editing text, • Formatting text, • Inserting clipart and images, • Slide layout, • Saving a presentation, • Printing a presentation document. 	<ul style="list-style-type: none"> • Demonstration and practice on the following: • Listing the software packages for presentation, • Explaining the features of presentation, • Creating a new presentation, • Adding a slide to presentation, • Deleting a slide, • Entering and edit text, • Formatting text, • Inserting clipart and images, • Sliding layout, • Saving a presentation, • Printing a presentation document. 	10
		Total Duration in Hours	20

UNIT 4: ENTREPRENEURIAL SKILLS – IV			
Learning Outcome	Theory (10 Hours)	Practical (15 Hours)	25 Hrs
1. Identify the general and entrepreneurial behavioral competencies	<ul style="list-style-type: none"> □ Barriers to becoming entrepreneur. □ Behavioral and entrepreneurial competencies – adaptability/decisiveness, initiative/perseverance, interpersonal skills, organizational skills, stress management, valuing service and diversity. 	<ul style="list-style-type: none"> • Administering self-rating questionnaire and score responses on each of the competencies. • Collect small story/ anecdote of prominent successful entrepreneurs. • Identify entrepreneurial competencies reflected in each story and connect it to the definition of behavioral competencies. • Preparation of competency profile of students. 	10
2. Demonstrate the knowledge of self-assessment of behavioral competencies	<ul style="list-style-type: none"> • Entrepreneurial competency in particular: self-confidence, initiative, seeing and acting on opportunities, concern for quality, goal setting and risk taking, problem solving and creativity, systematic planning and efficiency, information seeking, persistence, influencing and negotiating, team building. 	<ul style="list-style-type: none"> • Games and exercises on changing entrepreneurial behavior and development of competencies for enhancing self-confidence, problem solving, goal setting, information seeking, team building and creativity. 	15
		Total Duration in Hours	25

UNIT 5: GREEN SKILLS – IV			
Learning Outcome	Theory (05 Hours)	Practical (10 Hours)	15 Hrs
1. Identify the role and importance of green jobs in different sectors	<ul style="list-style-type: none"> • Role of green jobs in toxin-free homes. • Green organic gardening, public transport and energy conservation, • Green jobs in water conservation. • Green jobs in solar and wind power, waste reduction, reuse and recycling of wastes, • Green jobs in green tourism • Green jobs in building and construction. • Green jobs in appropriate technology. 	<ul style="list-style-type: none"> • Listing of green jobs and preparation of posters on green job profiles. • Prepare posters on green jobs. 	15

	<ul style="list-style-type: none"> • Role of green jobs in Improving energy and raw materials use • Role of green jobs in limiting greenhouse gas emissions • Role of green jobs minimizing waste and pollution • Role of green jobs in protecting and restoring ecosystems • Role of green jobs in support adaptation to the effects of climate change 		
		Total Duration in Hours	15

Part B: Vocational Skills

S. No.	Units	Duration (Hrs.)
1	Unit 1: Waterproofing	40
2	Unit 2: Painting aesthetics and software application	20
3	Unit 3: Features of designing and decoration	65
4	Unit 4: Allied features of painting	40
	Total	165

UNIT 1: WATERPROOFING			
Learning Outcome	Theory (10 Hrs)	Practical (30 Hrs)	Duration (40 Hrs)
1. Discuss different types of water proofing techniques	<ul style="list-style-type: none"> Introduction to waterproofing Procedure of Dampness treatment for wall and ceiling Various defects in painting surface due to water leakage/rainwater Problem solving techniques <ul style="list-style-type: none"> - Sealant - Admixtures - Tile grouting 	<ul style="list-style-type: none"> Survey the local school building/ residential building and note down the condition of building with respect to defects cause due to weather effect and improper maintenance Identify water proofing materials and tools Demonstrate various methods of water proofing based on site situation Perform checks to determine the water tightness of water proofed surface Demonstrate the housekeeping activities (cleaning of site, waste disposal, tools maintenance and cleaning and storing of tools and materials) 	30
2. Discuss different types of water proofing techniques using advance methods	<ul style="list-style-type: none"> Introduction to advance waterproofing techniques <ul style="list-style-type: none"> - Membrane (EPDM) - Advance crack solution - Water retention products (sealants, glue sticker, tapes etc) Properties of material used in water proofing 	<ul style="list-style-type: none"> Identification of defects/ location for the application of advance water proofing techniques Identify water proofing materials, tools and chemicals Estimate cost of different water proofing techniques Demonstrate the handling techniques of various chemicals and tools used in advance water proofing process Demonstrate the process of advance water proofing Perform checks to 	10

		<p>determine the water tightness of water proofed surface</p> <ul style="list-style-type: none"> • Demonstrate the housekeeping activities (cleaning of site, waste disposal, tools maintenance and cleaning and storing of tools and materials) 	
Total			40

UNIT 2: PAINTING AESTHETICS AND SOFTWARE APPLICATION

Learning Outcome	Theory (08 Hrs)	Practical (12 Hrs)	Duration (20 Hrs)
1. Explain the importance of painting for the aesthetic appearance of a painted surface/buildings/monuments	<ul style="list-style-type: none"> • Introduction to aesthetics appearance of painting surface [colour, shape, pattern, line, texture, visual weightage (contrast, brightness and combination of colour)] • Importance of aesthetics in painting 	<ul style="list-style-type: none"> • Identify colour, shape, pattern, line, texture, visual weightage of the painting surface as per the proposed plan • Prepare a plan/sketch (using drawing sheet) for painting of building using different colour combination (both interior and exterior surface) • Demonstrate a mock activity to show different shape, pattern, line etc 	08
2. Discuss the role of software in construction painting works	<ul style="list-style-type: none"> • Importance of software related to paints • Discuss about colour visualisation with the help of computer software 	<ul style="list-style-type: none"> • Visit a paint shop and perform followings: <ul style="list-style-type: none"> - list the different colours available on the colour catalogue - note the steps of making different shades of colour by using colour mixing machine • Note down the different software used for colour visualisation like (Photoshop, Corel draw etc) 	12
Total			20

UNIT 3: FEATURES OF DESIGNING AND DECORATION			
Learning Outcome	Theory (20 Hrs)	Practical (45 Hrs)	Duration (65 Hrs)
1. Perform various type of interior designer painting work	<ul style="list-style-type: none"> • Introduction to Interior Design • Discuss various kind of special effects used in interior design <ul style="list-style-type: none"> - Stencil finishes - Combination of stencils - High-end texture finishes inspired by fabrics - High-end texture finishes - Combination of different textures - High-end texture finishes inspired by new themes/infinite possibilities - High-end Textures inspired by desert and sand dunes - High-end textures inspired by marble and vintage classics - Wallpaper and Decal Application 	<ul style="list-style-type: none"> • Identify different types of colour/tools/books/catalogues used during interior painting • Use different type of colour tools/books/catalogues and perform following activity (any two activities) <ul style="list-style-type: none"> - Stencil finishes or - Combination of stencils or - High-end texture finishes inspired by fabrics or - High-end texture finishes - Combination of different textures or - High-end texture finishes inspired by new themes/infinite possibilities or - High-end Textures inspired by desert and sand dunes or - High-end textures inspired by marble and vintage classics or • Demonstrate the application of wallpaper and decal • Demonstrate the housekeeping activities (cleaning of site, waste disposal, tools maintenance and cleaning and storing of tools and materials) 	30
2. Perform advance wood finishes relevant to designer wood work	<ul style="list-style-type: none"> • Introduction to High-end Wood Finishes • Discuss different types and techniques used in wood finish [evaporative(lacquer and shellac etc) and reactive(catalysed lacquer, linseed oil etc)] • Procedure to apply polyester resin to wood 	<ul style="list-style-type: none"> • Identify different type of designer wood finishes(special effects) • Perform designer wood finishes work as per requirements/instructions • Demonstrate the procedure to apply polyester resin to the wooden surface • Demonstrate the housekeeping activities (cleaning of site, waste 	15

		disposal, tools maintenance and cleaning and storing of tools and materials)	
3. Perform various type of exterior designer painting work	<ul style="list-style-type: none"> • Introduction to exterior designer finishes <ul style="list-style-type: none"> - Scratch and other specialty exterior textures - High end imported grainy textured finishes 	<ul style="list-style-type: none"> • Identify different types of colour/tools/books/catalogues used during exterior painting • Calculate rough estimate of paint and other painting materials as per a given surface area • Use different type of colour tools/books/catalogues and perform following activity <ul style="list-style-type: none"> - Scratch and other specialty exterior textures - High end imported grainy textured finishes • Demonstrate the housekeeping activities (cleaning of site, waste disposal, tools maintenance and cleaning and storing of tools and materials) 	20
		Total	65

UNIT 4: ALLIED FEATURES OF PAINTING

Learning Outcome	Theory (16 Hrs)	Practical (24 Hrs)	Duration (40 Hrs)
1. Discuss the important features of site management and resource handling	<ul style="list-style-type: none"> • Introduction to material handling (Storage, use of painting material, tool and devices, safe use of harmful chemicals) • Management of painting activities (Documentation of work/job, requisition of resources, organization of paintings tools, materials, devices). • Standard procedure of calculation of painting works • Interpret work sketches, formats, permits, protocols, checklist and other work related documents • Define scope, duration and sequence of work for the painting activities 	<ul style="list-style-type: none"> • Demonstrate methods of the documentation related to painting activities • Make a plan for the painting schedule of a three room house • Calculate the quantity of paint material as per given surface area • Demonstrate optimum utilization of materials, tools and devices during painting activities • Demonstrate how to handle and organise painting tools and devices • Demonstrate effective communication skills while working within a team 	12

	<ul style="list-style-type: none"> • Importance of team work and timely completion of painting activities 	<ul style="list-style-type: none"> • Make a list of do and don't during painting work 	
2. Discuss about the use of various power tools related to mechanized painting	<ul style="list-style-type: none"> • Introduction to mechanized painting • Different type of power tools used under mechanized painting like- Putty mixer, laser distance meter and pressure washer, air-assisted spray painting, airless spray painting, using surface cleaning tools like power sanders, blasters & jet washers, computerized colour mixer. 	<ul style="list-style-type: none"> • List the advantages of mechanized painting • Draw the sketches of following tools - Putty mixer, laser distance meter and pressure washer, air-assisted spray painting, airless spray painting, using surface cleaning tools like power sanders, blasters & jet washers, computerized colour mixer 	10
3. Discuss about financial aspects of painting activities	<ul style="list-style-type: none"> • Painting economics: <ul style="list-style-type: none"> - Knowledge about market rate / trend of labours, paint material and tools and their rents. - Basic knowledge of profit and loss for doing any painting work - Optimum use of resources (Inventory management) - Knowledge about schedule of rates (SOR) provided by different government agencies such as CPWD 	<ul style="list-style-type: none"> • Survey of market for products details and their rates • Prepare list of materials and their quantities along with its market rate used for the required painting work • Calculate total manpower required to complete a certain painting work • Estimate total cost of the painting work 	10
4. Discuss the importance of interaction with customer/ clients	<ul style="list-style-type: none"> • Knowledge about soft skills used to interact with customers and clients • Importance of negotiating skills (in terms of rate, condition of work, time of completion etc) • Knowledge about risk associated with the undertaking work • Knowledge about customer etiquette 	<ul style="list-style-type: none"> • Prepare a set of questions to be asked during a mock interview with customer / clients • Demonstrate effective reporting procedure to seniors regarding any inputs given by the customer or clients (report format) Demonstrate how to take feedback from the customers or clients after the completion of work 	08
		Total	40

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 like school building/residential building/ construction sites. Visit a paint showroom/shop and observe the following: During the visit, students should obtain the following information from the owner or the supervisor of the showroom/shop:

1. Activities of paint showroom/shop
2. Detail information should be taken about paint material, tools and machines
3. Different section of showroom/shop
4. Quantity of paint sold annually
5. Sale procedure
6. Manpower engaged
7. Total expenditure required to run the painting showroom/shop
8. Total annual income
9. Profit/Loss (Annual)
10. Any other relevant 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.

Tools and Equipments and Training materials

Tools

- Measuring tape/ruler
- Ladder
- Scale
- Square
- Water Level Tube
- Spirit Level
- Plumb Bob
- Rollers
- Brushes
- Paint Bucket
- Sponges
- Tack Rags
- Paint Stirrers
- Sand Paper
- Masking Tape
- Scrappers
- Putty Knife
- Chisel Knife
- Knotting Brush
- Nail Punch
- Hammer
- Dusting Brush
- Dust Masks
- Wire Brushes
- Filling Knife
- Filling Board
- Painting Edger

- Sanders/Grinders

Safety Equipment

- Safety helmets
- Hand gloves
- Apron
- Goggles
- Safety shoes
- Safety harness
- Nose mask
- Knee pad
- Reflective jackets
- Fire extinguishers
- Barricading/caution tape
- Safety sign boards

Classroom aids

- Black/White board
- Marker
- Projector/LED Monitor
- Computer system
- e-Skill content
- Trade specific charts
- Safety tags
- Safety Notice board
- Registers and other teaching aids

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.	Degree in Engineering from a recognized Institute /University, with at least 1 year working / teaching experience Or Diploma in Engineering from a recognized Institute /University, with at least 2 years working / teaching experience Or Any graduate having working or teaching experience of 2 years in construction painting	<ul style="list-style-type: none"> • Effective communication skills (oral and written) • Basic computing skills. 	18-37 years (as on Jan. 01 (year)) Age relaxation to be provided as per Govt. rules.
2.	Desirable: Should have a valid certificate of trainer in the domain of "Construction Painter and Decorator, Level 4" or Painter course approved by any government institute		

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 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 Class X or Class 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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