Learning Outcome Based Vocational Curriculum

JOB ROLE: Digital Mitra

(Version 4.0 QP Code: SSC/Q2212, NQR Code : QG-03-IT-03665-2025-V2-NASSCOM)

SECTOR: IT-ITES

Grades IX and X



PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION
Shyamla Hills, Bhopal – 462 002, M.P., India
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Digital Mitra

IT-ITeS Sector

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Published by:

Joint Director

PSS Central Institute of Vocational Education, NCERT, Shyamla Hills, Bhopal

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. It is a part of Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education (CSSVSHSE) launched by the Ministry of Human Resource Development, Government of India in 2012. The PSS Central Institute of Vocational Education (PSSCIVE) is developing curricula under the project approved by the Project Approval Board (PAB) of *Samagra Shiksha*. The main purpose of the competency based curricula is to bring about the improvement in teaching-learning process and working competences 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 **IT-ITeS – Digital Mitra**. The curriculum has been developed for the secondary students of vocational education and is aligned to the National Occupation Standards (NOSs) of a job role identified and approved under the National Skill 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.

Dinesh Prasad Saklani
Director
National Council of Educational Research & 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 Education (MoE), Government of India introduced the revised Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education 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 the responsibility to develop learning outcome based curricula, 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 need 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 honor its commitment to the nation, the PSSSCIVE 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, 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 course-ware for number of job roles in various sectors.

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 development of curriculum. We are grateful to Ministry of Education and NCERT for the financial support and cooperation in realising the objective of providing learning outcome based modular curricula and course-ware to the States and other stakeholders under the PAB (Project Approval Board) approved project of *Samagra Shiksa* of Ministry of Education.

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 course-ware. 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

ACKNOWLEDGMENT

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* Rashtriya Madhyamik Shiksha Abhiyan (RMSA) 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, NCERT for his support and guidance. We also acknowledge the contributions of our colleagues at the Technical Support Group of RMSA, MHRD, RMSA Cell at the National Council of Educational Research and Training (NCERT), National Skill Development Agency (NSDA) and National Skill Development Corporation (NSDC) and IT-IteS Sector Skill Council (NIELT) for their academic support and cooperation.

We are grateful to the expert contributors and Deepak D. Shudhalwar, Professor (CSE), PSSCIVE, for their earnest effort and contributions in the development of this learning outcome based curriculum. Their contributions are dully acknowledged.

The contributions made by Vinay Swarup Mehrotra, Professor and Head, Curriculum Development and Evaluation Centre (CDEC), Vipin Kumar Jain, Associate Professor and Head, Programme Planning and Monitoring Cell (PPMC) and Deepak Shudhalwar, Professor (CSE) and Head, ICT and Computer Centre, PSSCIVE in development of the curriculum for the employability skills are duly acknowledged.

We are also grateful to the Course Coordinator Deepak D. Shudhalwar, Professor (CSE), Head, ICT Centre, Department of Engineering and Technology, PSSCIVE, for bringing out this curriculum in the final form.

PSSCIVE Team

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1. COURSE OVERVIEW

COURSE TITLE: DIGITAL MITRA

The Digital Mitra is a foundational role focused on developing proficiency in digital tools, office applications, and customer-centric digital services. The role includes training in computer system operations, utilizing advanced features in MS Office with AI assistance, managing digital records, troubleshooting, and ensuring cyber hygiene while delivering essential customer services. This position supports organizational efficiency by streamlining digital processes and ensuring smooth technical operations. This job requires the individual to have thorough knowledge of various technology trends and processes as well as have updated knowledge about database management systems and IT initiatives. The individual should have fast and accurate typing / data encoding. This job involves working in a personal computer, and appropriate software to enter accurate data regarding different issues like retrieving data from a computer or to a computer.

COURSE OUTCOMES:

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

- Explain the Digital India ecosystem and the role of a Digital Mitra.
- Identify IT and IT-enabled services (ITeS) and understand customer-centric digital services.
- Demonstrate workplace ethics and responsible use of AI.
- Use keyboards efficiently and perform accurate data entry and typing.
- Scan documents, use OCR, convert files and organize digital records.
- Create, edit, format and manage digital documents using word-processing software.
- Use AI tools for writing, editing, summarization and translation.
- Create and manage spreadsheets using formulas, functions and formatting.
- Sort, filter and analyse data and create charts, dashboards and MIS reports.
- Design professional presentations using multimedia and AI tools.
- Use digital platforms and government portals to access citizen services.
- Manage digital documents using cloud storage, Google Drive and DigiLocker.
- Apply cyber hygiene, password management and safe digital practices.
- Identify phishing, malware and other cybersecurity threats.
- Manage emails, online forms, digital records and data backups.
- Apply prompt engineering and use AI tools for productivity and content creation.
- Demonstrate responsible and ethical use of artificial intelligence.
- Develop skills in digital marketing, customer support and online communication.
- Explore freelancing and digital entrepreneurship opportunities.
- Apply digital and AI skills to solve practical workplace and business-related tasks.

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

COURSE LEVEL: This course can be taken up at Intermediate level in Grade 9 and 10.

COURSE DURATION: **Total : 400 hours**

Grade 9 : 200 hours

Grade 10 : 200 hours

2. SCHEME OF UNITS AND ASSESSMENT

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

Grade IX			
	Units	**No. of Hours for Theory and Practical 200**	**Max. Marks for Theory & Practical 100**
Part A	**Employability Skills**		
Unit 1	Communication Skills – I	15	**10**
Unit 2	Self-management Skills – I	10	
Unit 3	Information and Communication Technology Skills – I	10	
Unit 4	Entrepreneurial Skills – I	15	
Unit 5	Green Skills – I	10	
	Total	**60**	**10**
Part B	**Vocational Skills**		
Unit 1	Introduction to Digital Mitra and IT-ITeS Industry	10	**30**
Unit 2	Digital Data Entry and Keyboarding Skills	20	
Unit 3	Digital Documentation with AI (Elementary)	30	
Unit 4	Electronic Spreadsheet with AI (Elementary)	30	
Unit 5	Digital Presentation and AI Productivity	30	
	Total	**120**	**30**
Part C	**Practical Work**		
	Practical Examination		15
	Written Test		10
	Viva Voce		10
	Total		**35**
Part D	**Project Work/Field Visit**		
	Practical File/ Student Portfolio	10	10
	Viva Voce	05	5
	Total	**15**	**15**
Part E	**Continuous and Comprehensive Evaluation (CCE)**	**05**	**10**
	Total	**200**	**100**

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

Grade X			
	Units	**No. of Hours for Theory and Practical 200**	**Max. Marks for Theory and Practical 100**
Part A	**Employability Skills**		
Unit 1	Communication Skills – II	15	**10**
Unit 2	Self-management Skills – II	10	
Unit 3	Basic ICT Skills – II	15	
Unit 4	Entrepreneurial Skills – II	10	
Unit 5	Green Skills – II	10	
	Total	**60**	**10**
Part B	**Vocational Skills**		
Unit 1	Digital Documentation with AI (Advanced)	30	**30**
Unit 2	Electronic Spreadsheet, MIS and Data Visualization	30	
Unit 3	Digital Citizen Services, Cyber Security and Digital Records	30	
Unit 4	AI-enabled Digital Services and Digital Entrepreneurship	30	
	Total	**120**	**30**
Part C	**Practical Work**		
	Practical Examination		15
	Written Test		10
	Viva Voce		10
	Total		**35**
Part D	**Project Work/Field Visit**		
	Practical File/ Student Portfolio	10	10
	Viva Voce	05	5
	Total	**15**	**15**
Part E	**Continuous and Comprehensive Evaluation (CCE)**	**05**	**10**
	Total	**200**	**100**

3. TEACHING/TRAINING ACTIVITIES

The teaching and training activities have to be conducted in classroom, laboratory/ workshops and field visits. Students should be taken to field visits for interaction with experts and to expose them to the various tools, equipment, materials, procedures and operations in the workplace.

Special emphasis should be laid on the occupational safety, health and hygiene during the training and field visits.

CLASSROOM ACTIVITIES

Classroom activities are an integral part of this course and interactive lecture sessions, followed by discussions should be conducted by trained vocational teachers. Vocational teachers should make effective use of a variety of instructional 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: 30**

SN	Typology of Question	No. of Very Short Answer Q. (1 mark)	No. of Short Answer Q. (2 Marks)	No. of Long Answer Q. (3 Marks)	Marks
1.	Remembering – (Knowledge based simple recall questions, to know specific facts, terms, concepts, principles, or theories; identify, define or recite, information)	**2**	**1**	**2**	**10**
2.	Understanding – (Comprehension – to be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase, or interpret information)	**1**	**2**	**2**	**11**
3.	Application – (Use abstract information in concrete situation, to apply knowledge to new situations: Use given content to interpret a situation, private an example, or solve a problem)	**0**	**1**	**1**	**05**
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**	**1**	**0**	**02**
5.	Evaluation – (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)	**0**	**1**	**0**	**02**
	Total	**3x1=3**	**6x2=12**	**5x3=15**	**30 (14 Q.)**

SKILL ASSESSMENT (PRACTICAL)

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

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

Project Work (individual or group project) is a great way to assess the practical skills on a certain time period or timeline. Project work should be given on the basis of the capability of the individual to perform the tasks or activities involved in the project. Projects should be discussed in the class and the teacher should periodically monitor the progress of the project and provide feedback for improvement and innovation. Field

visits should be organised as part of the project work. Field visits can be followed by a small-group work/project work. When the class returns from the field visit, each group might be asked to use the information that they have gathered to prepare presentations or reports of their observations. Project work should be assessed on the basis of practical file or student portfolio.

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

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

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

Grade IX

Part A: Employability Skills

Unit No.	Unit Name	Duration in Hours
Unit 1	Communication Skills – I	15
Unit 2	Self-management Skills – I	10
Unit 3	Information and Communication Technology Skills – I	10
Unit 4	Entrepreneurial Skills – I	15
Unit 5	Green Skills – I	10
	Total	**60**

Unit 1: Communication Skills – I				
Sn	**Learning Outcome**	**Theory (05 Hours)**	**Practical (10 Hours)**	**15**
1	Demonstrate the Knowledge of Importance, Elements, and Perspectives in Communication	• Introduction to communication • Importance of communication • Elements of communication • Perspective in communication • Effective communication	• Role play on the communication process, • Group discussion and sharing of experiences on factors affecting communication, • Asking students to write examples of 7Cs (i.e. Clear, Concise, Concrete, Correct, Coherent, Courteous and Complete), • Preparing charts for elements of communication	02
2	Demonstrate the knowledge of verbal communication	• Verbal communication, • Types of verbal communication, • Advantages & disadvantages of verbal communication • Public speaking	• Role play of a phone conversation • Chat preparation on types of verbal communication • Group discussion on advantages and disadvantages of verbal communication • Delivering a speech and practising public speaking by using 3P's.	02
3	Demonstrate the knowledge of non-verbal communication	• Non-verbal communication • Importance of non-verbal communication • Types of non-verbal communication • Visual communication	• Role plays on non-verbal communication, • Group discussion and demonstration of Do's and Don'ts to avoid body language mistakes, • Group discussion on three methods of communication.	01
4	Demonstrate basic writing skills	• Writing skills: Parts of speech, • Using capitals, • Punctuations, • Basic parts of speech.	• Reading paragraphs and sentences and identifying parts of speech, • Constructing and writing sentences by using parts of speech, • Identifying nouns by guessing the name, place, animal, and thing.	02

5	Describe the parts and types of sentences	• Writing skills: Sentences, • Parts of a sentence, • Types of objects, • Types of sentences – active and passive, • Types of sentences, according to their purpose, • Paragraphs.	• Making and writing sentences using direct and indirect objects, • Writing paragraph using active and passive voice, • Writing different types of sentences (i.e. declarative, exclamatory, interrogative and imperative).	01
6	Demonstrate the knowledge of pronunciation basics	• Pronunciation basics, • Speaking correctly, • Phonetics, • Types of sounds.	• Pronouncing words and identifying vowels, diphthongs and consonants, • Practising the pronunciation of words.	01
7	Demonstrate how to greet and introduce self	• Greetings and Introductions, • Types of greetings, • Introducing self and others	• Role-play on formal and informal greetings • Role-play on introducing someone, • Practising greeting people.	01
8	Answer questions that others ask about you	• Talking about self, • Filling a form about self.	• Practising introducing self out form, • Practising how to talk about self	01
9	Asking questions according to a situation	• Asking questions, • Need for asking questions, • 5W+1H (Who, Where, When, What, Why+How) method for asking questions.	• Framing and writing questions (using Who, Where, When, What, Why and How) • Framing and writing questions, based on purpose of the question, • Discussing and guessing the personality using framed questions.	02
10	Use the correct question words to ask open-ended and close-ended questions	• Asking questions • Types of questions • Framing questions – open ended and close ended.	• Framing and writing open-ended and close-ended questions. • Group practice on framing questions.	02
			Total Duration in Hours	**15**

Unit 2: Self-management Skills – I				
Sn	**Learning Outcome**	**Theory (07 Hours)**	**Practical (03 Hours)**	**10**
1.	Describe the meaning and importance of self-management	• Introduction to self management and its components • Self-awareness • Self-confidence • Self-motivation • Positive thinking • Self-control • Problem solving • Personal hygiene and grooming, • Team work • Time management • Goal setting	• Group discussion on self-management skills • Performing activities to know how much aware are you about yourself. • Chart preparation on components of self-management	01
2.	Identify strength and weakness analysis	• Identifying strength and weakness • Knowing yourself • Strength and weakness analysis	• Group discussion on aim and goal in life • Perform a strength and weakness	01

		• Difference between interests and abilities	analysis • Group discussion on interests and abilities	
3.	Build self-confidence	• Self–confidence, • Qualities of self-confident people, • Building self-confidence	• Role play on building self-confidence • Performing activities on building confidence through positive words	02
4.	Build the concept on positive thinking	• Positive thinking, • Positive thinking and its importance, • How to keep your things positive	• Storytelling, • Role-play on following the class rules • Practising saying positive words • Making a list of steps involved in self-reflection) on how you will follow positive attitude practices • Home activity on helping others,	02
5	Describe the concept and aspects of personal hygiene	• Personal hygiene • Three steps of personal hygiene - Care, Wash, Avoid • Essential steps of handwashing	• Role-play on following personal hygiene steps • Discussion and follow up on personal hygiene practices	02
6	Follow the guidelines for dressing and personal grooming	• Grooming • Grooming and its importance, • Guidelines for dressing and personal grooming – clothes, hair, face	• Role play on dressing and grooming standards • Self-reflection on dressing and grooming well	02
			Total Duration in Hours	**10**

Unit 3: Information and Communication Technology Skills – I				
Sn	**Learning Outcome**	**Theory (05 Hours)**	**Practical (10 Hours)**	**15**
1.	Explain the role of Information and Communication Technology (ICT) in day-to-day life and the workplace	• Introduction to Information and Communication Technology (ICT) • ICT at workplace • ICT at home	• Group discussion on past, present, and future use of ICT • Preparations of posters on applications of ICT	02
2.	Differentiate between the ICT tools and use of mobile apps	• ICT tools – • Smartphones, • Tablets, • TV and Radio	• Performing activities to get familiar with mobile devices	01
3.	Differentiate between smartphones and tablets	• ICT tools – smartphone and tablet, • Mobile device layout • Basic features of a mobile device • Home screen of mobile device • Basic gestures used	• Performing activities to get familiar with the mobile device – use and applications of mobile devices	01
4.	Describe the parts of computer and computer peripherals	• Parts of a computer, • Input devices, • Output devices, • Peripherals devices and their functions, • Central Processing Unit (CPU),	• Chart preparation on components of a computer • Group activity on connecting devices to a computer	02

		• Understanding Random Access Memory (RAM) and Read Only Memory (ROM), • Motherboard, • Ports and connectors.		
5.	Demonstrate basic computer operations	• Basic computer operations, • Computer hardware and software, • Starting a computer, • Log in and log out, • Shutting down computer, • Using the keyboard • Using mouse	• Group activity on use of computer • Group practice on using the keyboard	02
6.	Perform basic file operations	• Performing Basic file operations, • File and folders – creating afile and using text editor	• Group practice on creating a file	01
7.	Demonstrate the knowledge of internet and networking	• Communication and Networking -Internet browsing • Use of internet • Connecting to internet • Types of connection • Bandwidth • Internet browser	• Group discussion on the uses of internet	01
8.	Perform internet browsing	• World Wide Web • Web pages • Web browsers	• Group practice on web browsing	01
9.	Apply the knowledge of communication networking	• Introduction to Email • Working of Email • Email address • Advantages of Email	• Group discussion on using Email and its advantages	01
10.	Create an Email account	• Creating an Email account • Steps to open an Email account on Gmail	• Group practice on creating and opening an Email account	01
11.	Write an Email	• Writing an Email • Attaching a file to an Email • Managing folders in Email account	• Group practice on receiving and replying to an email message	01
12.	Reply an Email	• Receiving Email, • Replying to an Email • Forwarding Email • Deleting Email	• Group practice on receiving and replying to an Email.	01
			Total Duration in Hours	**15**

Unit 4: Entrepreneurial Skills – I				
Sn	**Learning Outcome**	**Theory (05 Hours)**	**Practical (05 Hours)**	**10**
1.	Describe the concept of Entrepreneurship skills	• Concept of Entrepreneurship and Enterprise	• Group activity on guessing the Entrepreneur	01
2.	Describe the role of	• Role of Entrepreneurship	• Group discussion on “A world	02

	entrepreneurship	• Economic development • Social development • Improved standard of living • Optimal use of resources • More benefits at lower prices products and services at competitive prices	without entrepreneurship” • Role play on roles of entrepreneurship	
3.	Describe the qualities of a successful entrepreneur	• Qualities of a successful entrepreneur • Patience • Positive attitude • Hard-working • Confident • Open to trial and error • Creative and innovative	• Role play on appearing for interview • Group activity on interactions with entrepreneurs	02
4.	State the characteristics of entrepreneurship	• Distinguishing characteristics of entrepreneurship and wage employment • Characteristics of entrepreneurship • Wage employment • Benefits of entrepreneurship	• Group activity on identifying characteristics of enterprise • Discussion on advantages of entrepreneurship over wage employment	02
5.	Identify the type of business activity	• Types of business activities • Product business • Service business • Hybrid business	• Group activity on identifying different types of products and services	01
6.	Differentiate between the product, service, and hybrid businesses	• Product, Service, and Hybrid Businesses • Types of product-based business • Manufacturing businesses • Trade businesses	• Poster making on business activities around us	01
7.	Describe the entrepreneurship development process	• Entrepreneurship development process • Steps of starting a business – idea generation, getting money and material, understanding customer needs, improving product/ service	• Group activity on Make-and-Sell business	01
			Total Duration in Hours	**10**

Unit 5: Green Skills – I				
Sn	**Learning Outcome**	**Theory (07 Hours)**	**Practical (03 Hours)**	**10**
1.	Demonstrate the knowledge of society and environment	• Society and Environment • Natural resources • Renewable and Non-renewable resources • Types of pollutions • Climate change • Harmful radiation • Natural disaster • Saving the environment: What can	• Group activity on listing the factors influencing the environment • Group activity on listing the steps one can take to save the environment	05

		you do? • Reduce, reuse and recycle • Actions for saving the environment		
2.	Describe the meaning and importance of conserving natural resources	• Conserving the natural resources • Soil conservation • Water conservation • Energy conservation • Food conservation • Forest conservation	• Group discussion on conserving natural resources	02
3.	Describe the meaning and scope of sustainable development and green economy	• Sustainable Development • Sustainable Development Goals (SDGs) • Green growth • Green economy • Components of green economy – Renewable energy, green building, well managed • Skill development for the green economy • Green skills • Green jobs • Green projects	• Group discussion on importance of green skills • Poster making on importance of green economy	03
			Total Duration in Hours	**10**

Grade IX, Part B: Vocational Skills

Unit No.	Unit Name	Duration in Hours
Unit 1	Introduction to Digital Mitra and IT-ITeS Industry	10
Unit 2	Digital Data Entry and Document Creation	20
Unit 3	Digital Documentation with AI (Elementary)	30
Unit 4	Electronic Spreadsheet with AI (Elementary)	30
Unit 5	Digital Presentation and AI Productivity	30
	Total Duration	**120**

Unit 1: Introduction to Digital Mitra and IT-ITeS Industry				
Sn	**Learning Outcome**	**Theory (5 Hours)**	**Practical (5 Hours)**	**10**
1.	Explain the Digital India Ecosystem	• Digital India Mission and its three pillars. • Digital Public Infrastructure. • Digital Mitra: roles and responsibilities.	• Identify Digital India initiatives and digital services. • Explore DigiLocker, UMANG and UPI through demonstrations. • Role-play the work of a Digital Mitra.	02
2.	Explain the Role and Responsibilities of a	• Introduction and importance of a Digital Mitra.	• Interview a Digital Mitra or CSC operator.	02

	Digital Mitra	• Roles and responsibilities. • Workplaces and skills required.	• Identify services provided by a CSC. • Prepare a report on the role of a Digital Mitra.	
3.	Explain Customer-Centric Digital Services	• Types of digital services and their benefits. • Digital literacy and community services. • Customer-centric services and their characteristics. • Workplace ethics and professional behavior. • Digital workplace and its features.	• Explore and evaluate digital services. • Prepare a comparison of traditional and digital services. • Suggest improvements to make a digital service user-friendly.	03
4.	Explain AI-Enabled Digital Workplaces	• Emerging technologies: AI, ML, IoT, cloud computing and others. • AI tools and their workplace applications. • Principles of responsible and ethical AI.	• Explore AI tools such as ChatGPT, Copilot and Grammarly. • Use AI to prepare a notice, email or summary. • Compare manual and AI-assisted tasks.	03
			Total Duration in Hours	**10**

Unit 2: Digital Data Entry and Document Creation				
Sn	**Learning Outcome**	**Theory (15 Hours)**	**Practical (15 Hours)**	**30**
1.	Use Microsoft 365 and keyboard skills for accurate digital data entry	• Introduction to digital data entry and word processing. • Microsoft 365 and Microsoft Word interface. • Keyboard layout, common keys and shortcuts. • Home row keys, touch typing and typing ergonomics.	• Launch Microsoft 365 and open Word. • Identify common keyboard keys and practise shortcuts. • Practise typing letters, numbers and paragraphs. • Practise touch typing using home row keys.	15
2.	Create, format, proofread and manage documents using Microsoft Word	• Creating, editing and formatting documents. • Using paragraphs, headings, lists, tables and pictures. • Inserting page numbers, headers, footers, page breaks and hyperlinks. • Proofreading, spelling and grammar tools. • Accurate numerical data entry. • Scanning, OCR and document file management.	• Create a school notice or short report. • Prepare and format a table using fictional data. • Insert pictures and other page elements. • Proofread and correct a document using Word tools. • Scan a non-confidential page and use OCR to convert it into editable text. • Save, name and organize Word documents.	15
3.	Share and collaborate on digital documents	• Sharing documents through Microsoft 365. • Viewing and editing permissions.	• Create and save a Word document. • Share it with classmates using suitable permissions.	

	using Microsoft 365	• Collaborative editing and adding comments. • PDF export and file conversion. • Safe document-sharing practices.	• Collaborate by editing content and adding comments. • Review and finalise the document. • Export the final document as PDF.	
			Total Duration in Hours	**30**

Unit 3: Digital Documentation with AI (Elementary)				
Sn	**Learning Outcome**	**Theory (15 Hours)**	**Practical (15 Hours)**	**30**
1.	Create and Personalize Documents Using Templates and Mail Merge	• Introduction to Microsoft Word and templates. • Types and uses of document templates. • Introduction to Mail Merge. • Components of Mail Merge: Main Document, Data Source and Merged Document. • Steps involved in Mail Merge.	• Create a resume using a Word template. • Prepare a recipient list using Excel. • Create an invitation letter using Mail Merge. • Generate personalized certificates for multiple recipients.	07
2.	Generate and Improve Documents Using AI Assistance	• Introduction to Microsoft 365 Copilot. • Understanding AI prompts and their components. • AI-assisted content generation and drafting. • Improving sentences and rewriting text. • Applications of Copilot in document preparation.	• Draft a school notice using Copilot. • Improve sentences using AI assistance. • Prepare a formal letter using Copilot. • Create a student resume using AI assistance.	08
3.	Check Grammar and Summarize Documents Using AI Assistance	• Introduction to AI-assisted grammar checking. • Spelling, punctuation and sentence correction. • Understanding summarization. • Identifying key information from lengthy documents. • Reviewing and verifying AI-generated content.	• Identify and correct grammatical errors using Copilot. • Proofread and improve a given paragraph. • Summarize an article on Digital India. • Prepare a document containing key points from a lengthy text.	07
4.	Translate Text and Generate Creative Content Using AI Assistance	• Introduction to AI-assisted translation. • Translation between English and Indian languages. • AI-assisted idea generation. • Creating professional documents using Word. • Ethical and responsible use of AI. • Verification of AI-generated information.	• Translate an English paragraph into Regional language (Hindi or Marathi). • Generate ideas for a Cyber Safety poster. • Create a school newsletter using Copilot. • Prepare a two-page information document on the Digital Mitra job role.	08
			Total Duration in Hours	**30**

Unit 4: Electronic Spreadsheet with AI				
Sn	**Learning Outcome**	**Theory (15 Hours)**	**Practical (15 Hours)**	**30**
1.	Use Microsoft Excel 365 to Organize Data and Perform Calculations	• Introduction to electronic spreadsheets and their uses • Workbook, worksheet, rows, columns, cells and cell addresses • Entering and editing data Arithmetic formulas and basic functions (SUM, AVERAGE, MAX, MIN, COUNT) • Introduction to Microsoft 365 Copilot for spreadsheet tasks	• Explore the Excel interface and create a workbook. • Create a school attendance sheet using formulas. • Prepare a student mark sheet using basic functions. • Ask Copilot to explain a formula and verify its result.	10
2.	Format, Sort, Filter and Analyse Spreadsheet Data	• Relative and absolute cell references • Worksheet formatting (font, alignment, borders, colours) • Number formatting (currency, percentage, date, decimal) • Sorting and filtering data • Conditional formatting	• Format a student mark sheet. • Prepare a monthly budget using formulas. • Create a sales register and calculate total sales. • Sort and filter records and apply conditional formatting.	10
3.	Create Charts and Analyse Data Using AI	• Types of charts (Column, Bar, Line and Pie) • Creating and formatting charts • AI-assisted formula suggestions • Using AI for data analysis and chart recommendations • Writing prompts and verifying AI-generated results	• Create charts using attendance, marks or sales data. • Use Copilot to suggest and explain formulas. • Ask AI questions about a sample dataset. • Verify AI-generated calculations and observations in Excel.	10
			Total Duration in Hours	**30**

Unit 5: Digital Presentation and AI Productivity				
Sn	**Learning Outcome**	**Theory (15 Hours)**	**Practical (15 Hours)**	**30**
1.	Create, Save and Organise Presentations	• Digital presentations and their uses. • Introduction to Microsoft PowerPoint 365 and its interface. • Slides, slide sequence and presentation structure. • Creating, saving and organising presentations.	• Explore the PowerPoint interface and its tools. • Create a presentation titled *My School*. • Add slides with relevant text and pictures. • Save and run the slideshow.	07
2.	Select Suitable Slide Layouts and Themes	• Slide layouts and their types. • Themes and PowerPoint Design Suggestions. • Principles of good slide design. • Text formatting and image quality.	• Create a *My School* presentation using suitable slide layouts. • Apply a theme and maintain consistent fonts and colours. • Insert, resize and position relevant pictures. • Improve slide readability and	07

			design.	
3.	Use Shapes, Animations, Audio and Video Appropriately	• Shapes, icons and SmartArt diagrams. • Inserting and using audio and video. • Animation effects and their types. • Slide transitions. • Speaker notes, Slide Show controls and Presenter View. • Effective oral presentation skills.	• Create a presentation on *Benefits of Digital Learning*. • Insert shapes, icons and diagrams. • Apply suitable animations and slide transitions. • Insert and test audio narration and video. • Add speaker notes and practise delivering the presentation.	08
4.	Use Microsoft 365 Copilot to Generate Presentations	• AI-assisted presentation creation. • Prompt writing and effective prompts. • Generating presentation outlines and slide content. • Adding and improving slides using Copilot. • Summarising presentations and preparing speaker notes. • PowerPoint Design Suggestions. • Responsible and safe use of AI.	• Generate a presentation outline using Copilot. • Create an AI-assisted presentation on *Digital Safety* or *Digital India*. • Improve slide content and generate speaker notes. • Review and verify AI-generated content. • Deliver a short oral presentation.	08
			Total Duration in Hours	**14**

GRADE X

Part A: Employability Skills

Unit No.	Unit Name	Duration in Hours
Unit 1	Communication Skills – II	15
Unit 2	Self-management Skills – II	10
Unit 3	Information and Communication Technology Skills – II	15
Unit 4	Entrepreneurial Skills – II	10
Unit 5	Green Skills – II	10
	Total	**60**

Unit 1: Communication Skills – II				
Sn	**Learning Outcome**	**Theory (07 Hours)**	**Practical (08 Hours)**	**20**
1.	Demonstrate the knowledge of various methods of communication	• Methods of communication • Communication process and elements	• Role plays on communication process • Group discussion on the effects of elements of communication cycle.	02
2.	Describe the types of verbal communication	• Verbal communication • Types of verbal communication • Advantages and disadvantages of verbal communication	• Role play of a telephonic conversation • Chart preparation on types of verbal communication	02

		• Mastering verbal communication	• Group discussion on the advantages and disadvantages of verbal communication • Group activity on delivering a speech and practising public speaking.	
3.	Demonstrate the knowledge of non-verbal communication	• Non-verbal communication – Importance of non–verbal communication • Types of non-verbal communication • Visual communication	• Role play on non-verbal communication • Group discussion and practice on how to avoid body language mistakes • Group discussion on three methods of communication	02
4.	Describe the communication cycle and importance of feedback	• Communication cycle and importance of feedback • Feedback • Types of feedback • Importance of feedback	• Role play on providing feedback • Group activity on constructive feedback	02

5.	Identify the barriers to effective communication	• Effective communication
		• Barriers to effective communication -
		  • Physical barriers
		  • Linguistic barrier
		  • Interpersonal barriers
		  • Organizational barriers
		  • Culture barriers
		• Ways to overcome barriers to effective communication
			• Role play on barriers to effective communication
			• Group practice on overcoming the barriers to effective communication
			• Chart preparation on barriers to effective communication
				03

6.	Demonstrate the knowledge of parts of speech	• Writing skills – Parts of speech
		• Capitalization
		• Punctuations
		• Basics of parts of speech
		• Supporting parts of speech
		  • Article
		  • Conjunctions
		  • Prepositions
		• Interjections
			• Reading paragraph and sentences and identifying parts of speech
			• Group activity on sentence construction
			• Identifying nouns by guessing the name, place, animal, or thing
				02

7.	Write sentences	• Meaning of sentence
		• Parts of sentence
		  • Subject
		  • Verb
		  • Object
		• Types of objects
		• Types of sentences
		  • Active
		  • Passive
		• Paragraphs
			• Making sentences using direct and indirect objects
			• Writing a paragraph using active and passive voice
			• Framing different types of sentences (i.e., declarative, exclamatory, interrogative and imperative)
				02

			Total Duration in Hours	**15**

Unit 2: Self-Management Skills – II

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

4.	Set SMART goals	• Self regulation – Goal setting,
		• Goals and setting SMART Goals
		• How to set SMART Goals,
		  • Specific
		  • Measurable
		  • Achievable
		  • Realistic
		  • Time bound
			• Group activity on setting SMART goals
			• Writing long- term and short-term goals
			• Activity on listing the ways to surely set SMART goals
				02

5.	Demonstrate the knowledge of time management	• Self-Regulation – Time Management
		• Time management and its importance
		• Example and non-example of time management
		• Four steps for effective time management
		  • Organise
		  • Prioritise
		  • Control
		  • Track
		• Tips for practicing the four steps of effective time management
			• Preparing a list of activities to practice time management
			• Discussion on how to manage time to reach school on time
				02

			Total Duration in Hours	**10**

Unit 3: Information And Communication Technology Skills – II				
Sn	**Learning Outcome**	**Theory (05 Hours)**	**Practical (10 Hours)**	**15**
1.	Perform basic computer operations	• Basics computer operations, • Starting a computer - basic functions performed when a computer starts, login and logout,	• Demonstration on use of computers • Group practice on using the keyboard	07

		• Shutting down a computer, • Using keyboard, • Using a mouse - Roll over or hover, Point and click, Drag and drop, Double click		
2.	Perform basic file operations	• Concept of basic file operations • Files and folders • Creating a file • Creating a folder	• Demonstration and practice on creating a file and folder	02
3.	Demonstrate computer care and maintenance	• Importance of care and maintenance of computers • Basic tips for taking care of devices • Cleaning computer devices • Preparing maintenance schedule for computers • Taking backup data • Scanning and cleaning viruses • Removing SPAM files	• Making a chart on care and maintenance of computer	03
4.	Describe the importance of maintaining computer security and privacy	• Computer security and privacy • Reasons for security breach • Threats to computer • Protecting your data	• Group work on preparing a chart of computer security and privacy	03
			Total Duration in Hours	**15**

Unit 4: Entrepreneurial Skills – II				
Sn	**Learning Outcome**	**Theory (05 Hours)**	**Practical (05 Hours)**	**10**

1.	Describe the meaning of entrepreneurship	• Entrepreneurship and society
		• Activities of entrepreneurs:
		  • Fulfil customer needs
		  • Use local materials
		  • Help society
		  • Create job
		  • Share wealth
		  • Lower price product
			• Group work on finding the problems in school campus and turning them into business opportunities	03

2.	Identify the qualities and functions of an entrepreneur	• Qualities and functions of an entrepreneur • Qualities of an entrepreneur	• Activity on self-assessment of entrepreneurial qualities • Brainstorming on solving a problem in their area • Taking an interview of an entrepreneur	02
3.	Describe the myths and realities about entrepreneurship	• Misconceptions and myths about entrepreneurship	• Group activity on identifying everyday heroes • Activity on interviewing the entrepreneurs • Group activity on making items and selling to someone	02
4.	Describe entrepreneurship as a	• Entrepreneurship as a career	• Brainstorming on entrepreneurship	03

	career option	option • Meaning of career • Ways of earning a living • Self-employment • Wage employment • Entrepreneurship career process – Enter, Survive, Grow	as a life option • Group discussion on The power of entrepreneurship	
			Total Duration in Hours	**10**

Unit 5: Green Skills – II				
Sn	**Learning Outcome**	**Theory (07 Hours)**	**Practical (03 Hours)**	**10**
1.	Demonstrate the knowledge of green skills	• Sustainable development, • Importance of sustainable development, • Problems related to sustainable development, • Sustainable development Goals, • Sustainable development initiatives, • Sustainable process	• Group activity on creating garden in the school or planting tree saplings • Group discussion on “How to prevent wastage”	05

2	Describe the role of self in sustainable development	• Our role in sustainable development
		• Our role towards Sustainable Development
		  • Quality education
		  • Clean water and sanitation
		  • Affordable and clean energy
		  • Decent work and economic growth
		  • Reducing inequalities
		  • Creating sustainable cities and communities
		  • Responsible consumers and producers
		  • Protect life below water
		• Protect life on land
			• Group discussion on conservation and protection of environment
			• Group activity on organising an art project using waste
				05

			Total Duration in Hours	**10**

Grade X, Part B: Vocational Skills

Unit No.	Unit Name	Duration in Hours
Unit 1	Digital Documentation with AI (Advanced)	30
Unit 2	Electronic Spreadsheet, MIS and Data Visualization	30
Unit 3	Digital Citizen Services, Cyber Security and Digital Records	30
Unit 4	AI-enabled Digital Services and Digital Entrepreneurship	30
	Total Duration	**120**

Unit 1: Digital Documentation with AI (Advanced)				
Sn	**Learning Outcome**	**Theory (15 Hours)**	**Practical (15 Hours)**	**30**
1	Apply Advanced Formatting, Styles and Table of Contents	• Advanced character and paragraph formatting. • Page layout, sections, columns, headers, footers and page numbers. • Inserting and formatting tables, pictures and captions. • Creating, applying and modifying styles. • Using the Navigation Pane and automatic Table of Contents. • Structure and formatting of reports.	• Design a tri-fold brochure using columns, pictures and themes. • Create and modify heading styles. • Prepare a report with a cover page, automatic Table of Contents and page numbers.	10
2	Create and protect fillable forms, develop reusable document templates and prepare official letters using standard formats.	• Introduction to forms and templates. • Content controls and form protection. • Creating, saving and using Word templates. • Parts and format of an official letter. • Formal language and formatting guidelines.	• Create a Digital Literacy Camp Registration Form. • Design and save an official letter template. • Prepare an official letter using the template and save it as a PDF.	10
3	Collaborate on digital documents, use AI tools responsibly for editing and review documents to produce accurate and final versions.	• Sharing documents and managing access permissions. • Comments, Track Changes and Version History. • Comparing, protecting and exporting documents as PDF. • Introduction to AI-based document editing. • Writing effective AI prompts. • Responsible use of AI, data privacy and fact verification. • Document review and accessibility checks.	• Share a document with a partner and collect comments. • Use Track Changes to edit, accept and reject corrections. • Use an approved AI tool to improve a sample paragraph and verify its suggestions. • Review and save the final document as a PDF.	10

			Total Duration in Hours	**30**

Unit 2: Electronic Spreadsheet, MIS and Data Visualization				
Sn	**Learning Outcome**	**Theory (15 Hours)**	**Practical (15 Hours)**	**30**
1.	Apply advanced spreadsheet functions	• Spreadsheet workspace and preparation of reliable data. • Relative, absolute and mixed cell references. • Statistical and conditional functions: SUM, AVERAGE, COUNTIF, SUMIFS. • Logical functions: IF, IFS, AND, OR and IFERROR. • Lookup functions: XLOOKUP and VLOOKUP. • Text, date and dynamic-array functions: TRIM, LEFT, RIGHT, SORT, FILTER and UNIQUE. • AI-assisted formula generation and verification.	• Create and format a student database using fictional records. • Apply IF, COUNTIF, COUNTIFS and AVERAGEIF to analyse records. • Use XLOOKUP to find student details using Student ID. • Practise text, date and dynamic-array functions. • Compare manually written formulas with AI-suggested formulas and verify the results.	10
2.	Organise, filter and summarise large datasets using sorting, filtering and PivotTables	• Sorting data in ascending, descending and multiple-level order. • Filtering data using text, number, date and colour filters. • Using SUBTOTAL with filtered data. • Introduction to PivotTables and their four areas: Filters, Rows, Columns and Values. • Changing PivotTable calculations: Sum, Count, Average, Max and Min. • Grouping dates, using slicers and creating PivotCharts. • Refreshing PivotTables and maintaining data quality.	• Sort student or sales records using multiple fields. • Apply filters to display selected records. • Create PivotTables to summarise students by class and house. • Calculate average marks or total sales using PivotTables. • Insert and test slicers and refresh the PivotTable after updating data.	10
3.	Create meaningful charts, interactive dashboards and MIS reports using spreadsheet data and AI tools	• Data visualisation and types of charts: Column, Bar, Line, Pie, Area and Scatter. • Chart formatting, titles, labels, legends and axes. • Introduction to dashboards and Key Performance Indicators (KPIs). • Dashboard components, layout and design principles. • Meaning, purpose and types of MIS reports. • AI-assisted spreadsheet analysis	• Create and format suitable charts using sample sales or student data. • Design a dashboard with KPI cards, charts and filters. • Prepare a school attendance or monthly sales MIS report. • Use an AI assistant to suggest or explain formulas and analyse sample data. • Verify AI-generated results against spreadsheet calculations and prepare the final report.	10

		and formula verification. • Responsible use of AI, data privacy and accuracy checks.		
			Total Duration in Hours	**30**

Unit 3: Digital Citizen Services, Cyber Security and Digital Records				
Sn	**Learning Outcome**	**Theory (15 Hours)**	**Practical (15 Hours)**	**30**
1.	Demonstrate safe cyber practices	• Cyber hygiene and the importance of cyber security. • Strong passwords, password managers and multi-factor authentication (MFA). • Phishing, social engineering and common types of malware. • Device, network and shared-computer safety. • Cyber incident response and reporting of financial cyber fraud.	• Analyse fictional phishing messages and identify warning signs. • Prepare a cyber hygiene checklist for a workstation. • Practise safe responses to sample cyber-threat situations.	07
2.	Organise, store, scan, retrieve and share digital records securely using cloud storage	• Digital records and their life cycle. • Cloud storage, Google Drive and sharing permissions. • Document scanning and PDF creation. • Optical Character Recognition (OCR) and proofreading. • Backup, recovery and e-mail management. • Data minimisation, file naming and record retention.	• Upload and organise sample files in Google Drive with restricted access. • Scan a sample document and save it as a PDF. • Use OCR to extract text and identify errors. • Perform a backup and restore exercise.	07
3.	Identify and use official digital citizen-service portals to understand DigiLocker, Aadhaar and PAN services	• Government portals and customer-centred digital assistance. • Verification of official websites and service information. • DigiLocker: issued documents and uploaded files. • Aadhaar services, Masked Aadhaar and Virtual ID (VID). • PAN services and authorised service providers. • Online forms, document uploads and application acknowledgements. • Consent, privacy and accessible digital assistance.	• Identify official government service portals. • Prepare a DigiLocker document flow diagram. • Explore Aadhaar and PAN services using official public information. • Complete a mock online application using fictional data. • Prepare a checklist for reviewing an application before submission.	08
4.	Demonstrate safe digital payment practices	• UPI, UPI ID, QR codes and UPI PIN. • Digital payment safety and transaction status.	• Demonstrate a sample UPI transaction using a safe demo environment. • Identify Success, Pending and	08

		• Digital receipts and transaction references. • E-mail and citizen-service communication. • Service registers and Management Information System (MIS). • MIS summaries, KPIs and data privacy. • Responsible use of AI in citizen services.	Failed payment statuses. • Prepare a fictional service register. • Create a one-page MIS summary with a chart or KPI. • Complete the Digital Citizen Service Desk Pack as a group capstone project.	
			Total Duration in Hours	**30**

Unit 4: AI-enabled Digital Services and Digital Entrepreneurship				
Sn	**Learning Outcome**	**Theory (15 Hours)**	**Practical (15 Hours)**	**30**
1.	Develop and refine effective prompts and use ChatGPT	• Introduction to AI, Generative AI, LLMs and ChatGPT. • Prompt engineering: role, task, context, requirements, format and review. • Testing and improving prompts. • AI applications and limitations. • Verification of AI-generated information.	• Write and improve prompts for an e-mail, FAQ and social-media caption. • Generate an AI-assisted event invitation e-mail. • Review and verify AI-generated content.	07
2.	Apply responsible AI principles, annotate sample data using guidelines and create or improve digital content with AI assistance.	• AI ethics: fairness, privacy, transparency, accuracy and accountability. • AI bias, misinformation, deepfakes and copyright. • Data privacy and protection. • Data annotation: text classification, intent labelling, entity tagging and image labelling. • AI-assisted content creation: text, images, graphics, audio and video.	• Label fictional feedback as Positive, Negative or Neutral. • Practise identifying bias and misleading AI-generated content. • Create an AI-assisted poster using a fictional event brief. • Review content for accuracy, readability and permissions.	07
3.	Use AI tools to prepare customer-support responses and plan digital marketing activities	• Customer-support skills: listening, clarification, verification and escalation. • AI-assisted FAQs, chatbots and customer e-mails. • Digital marketing channels and campaign planning. • Customer persona, value proposition and call to action (CTA). • Content calendars and marketing measures: reach, impressions, engagement, clicks and enquiries.	• Prepare five FAQs for a fictional help-desk using AI. • Draft a customer-support e-mail. • Create a one-week digital marketing plan for a fictional business. • Calculate and interpret basic campaign engagement results.	08

4.	Identify digital freelancing opportunities, prepare client proposals and develop a basic digital business idea using AI tools and process optimisation techniques.	• Introduction to freelancing and digital service opportunities. • Portfolio development and freelance proposals. • Client requirements, deliverables, timelines, pricing and payment safety. • Digital entrepreneurship and business model canvas. • AI-enabled process optimisation. • Business promotion, cost calculation and basic revenue planning.	• Prepare a sample digital portfolio using fictional projects. • Draft a freelance proposal for a fictional client. • Develop a simple business model canvas. • Prepare a business promotion pack with a poster, captions, FAQs and content calendar. • Create a short AI-assisted business report using sample data.	08
			Total Duration in Hours	**30**

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. During summer or winter vacation, students can undergo one week on-the-job training in nearby industry or work place.

Visit a Software Development Company and observe the following:

Location, Site, Computer systems and peripheral devices, Software, Software Development Process, Coding and Testing Tools, Documentation Process, Software Maintenance. During the visit, students should obtain the following information from the organisation:

- Computer System, parts and peripherals,
- Role and responsibilities of Digital Mitra
- MS Office (Word, Excel & PowerPoint)
- AI Tools and Digital Applications
- Internet and Email Management
- Data Entry and Database Management
- Digital Record Keeping
- Cybersecurity and Data Protection
- Online Government Digital Services
- Customer Service and Grievance Handling
- Digital Payment Awareness
- IT Infrastructure Assessment
- Digital Literacy and Staff Training

7. LIST OF EQUIPMENT AND MATERIALS

The equipment / materials listed below are required to conduct effective hands-on learning sessions while delivering the AI curriculum to class 10 students. The list below consists of minimal configuration required to execute the AI curriculum for class 10 and create social impact real time solutions/ projects. The quantities mentioned here are recommended for a batch of 20 students keeping the human-machine ratio as 2:1. An exhaustive list may be compiled by the teacher(s) teaching the subject.

List of Tools and Equipment

Sn	Tool/ Equipment	Specifications	Quantity
1	Student Chair	Revolving chair	30
2	Student Table	Computer Table	30
3	Desktop computers	Desktop computer with latest specifications, Camera, Headphone with Wifi/internet connectivity	30
4	Printer	Laser Printer	1
5	Software	Operating System: Windows, Anti-Virus Activated Productivity Suite: MS Office 365 with Microsoft Copilot AI Tools - ChatGPT	30 Licenes

NOTE: In keeping with the spirit of Recycle, Upcycle and Reuse, it is recommended to make use of any equipment/ devices/ accessories from the existing inventory in school.

Classroom Aids

Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Pin-up Board, Projector, Laptop

8. TEACHER'S/TRAINER'S QUALIFICATION

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

Qualifications	**Age Limit**
Essential : Bachelor's degree in Engineering/ Technology (IT/CS/AI/Data Science) **OR** Bachelor's degree in Science B.Sc. (CS/IT) **OR** BCA **OR** NIELIT "O" Level Certificate. ***Desirable:*** Certified to TOT for the job role: SSC/Q2212 "Digital Mitra" or equivalent with Minimum accepted score is 80%. ***Experience:*** 2 years of work experience in Industry/ Training.	18-37 years (as on Jan. 01 (year)) Age relaxation to be provided as per Govt. rules

Note – The qualifications for vocational teachers mentioned above is suggestive and not prescriptive. The States/ UTs can make modifications in the qualifications for appointment of vocational teachers/ trainers as per their requirement through a committee appointed by the competent authority in the State/ UT Directorate/ Department of School Education.

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 following ways:

1. 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**
2. 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:

1. Written test for the technical/domain specific knowledge related to the sector;
2. Interview for assessing the knowledge, interests and aptitude of trainer through a panel of experts from the field and state representatives; and
3. 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:

- Prepare session plans and deliver sessions which have a clear and relevant purpose and which engage the students;
- Deliver education and training activities to students, based on the curriculum to achieve the learning outcomes;
- Make effective use of learning aids and ICT tools during the classroom sessions;
- 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;
- 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;
- Identify the weaknesses of students and assist them in up-gradation of competency;
- Cater to different learning styles and level of ability of students;
- Assess the learning needs and abilities, when working with students with different abilities
- Identify any additional support the student may need and help to make special arrangements for that support;
- 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:

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

9. LIST OF CONTRIBUTORS

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PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION

(A constituent unit of National Council of Educational Research and Training, under Ministry of Education, Government of India)