

LEARNING OUTCOME BASED VOCATIONAL CURRICULUM

JOB ROLE:

Storyboard Artist

(QUALIFICATION PACK: Ref. Id. MES/Q0507)

SECTOR: Media and Entertainment
Classes 9 and 10



PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION
Shyamla Hills, Bhopal – 462 002, M.P., India
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Media and Entertainment – Storyboard Artist

June, 2018

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Published by:

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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 *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA). 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 **Media and Entertainment – Storyboard Artist**. 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.

Hrushikesh Senapaty
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 fulfill 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 fulfill the needs of the society and the world of work. In order to honor its commitment to the nation, the PSSCIVE has initiated the work on developing learning outcome based curricula with the involvement of faculty members and leading experts in respective fields. It is being done through the concerted efforts of leading academicians, professionals, 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 over 100 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 curricula and courseware to the States and other stakeholders under the PAB (Project Approval Board) approved project of *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA) 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 courseware. We hope that this document will prove useful in turning out more competent Indian workforce for the 21st Century.

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 Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and the officials of the Ministry of Education (MoE), 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 Media and Entertainment Sector Skill Council for their academic support and cooperation in the development of curricula.

We are grateful to the coordinator and associated expert 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 D. Shudhalwar, Professor (CSE) and Head Computer Center, 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) and Head ICT and Computer Center, PSSCIVE, for bringing out this curriculum in the final form.

PSSCIVE Team

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1. COURSE OVERVIEW

COURSE TITLE: Storyboard Artist

A Story Board Artist performs the basic operations related to preparation of Visualizing Script for specific medium. Individuals at this job need to translate the script/story/idea/concept into a visual medium using a series of illustrated frames. This job requires the individual to have excellent drawing skills and an understanding of the elements of storyboarding. Thus, working on Translating Script for developing, Visual Artwork Required by the Stakeholders in Media & Entertainment Industry, such as Financers, Makers, Actors, Prop Artist, Sound & VFX Directors etc. The individual must be able to visualize frames/ scenes and conceptualise creative ways to illustrate them using software such as Adobe Photoshop Storyboard Pro, Storyboard Artist Studio. Story Board Artist provide stakeholders all the information available within the Script by Visualizing them to help Movie Production in Production work so that makers to select and care for required resources & equipment as per specifications derived by Visualizing Script.

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

- ✓ Apply effective oral and written communication skills to interact with customers;
- ✓ Identify the principal components of a computer system;
- ✓ Demonstrate the basic skills of using computer;
- ✓ Demonstrate self-management skills;
- ✓ Demonstrate ability to provide 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;
- ✓ Describe the the basics of storyboarding;
- ✓ Identify different animation types to understand storyboard requirement;
- ✓ Describe different types of storyboards and their application area;
- ✓ Breakdown the script into scenes and shots;
- ✓ Describe the storyboarding production process;
- ✓ Describe different shots, scenes, camera angles and taransition used to create storyboard;
- ✓ Describe the different sketching tools;
- ✓ Sketch the object through observation and recording;
- ✓ Draw the human character;
- ✓ Draw perspective drawings;
- ✓ Perform shading and lighting on object;
- ✓ Create a storyboard;
- ✓ Describe the colour theory and importance of colours;
- ✓ Describe the impact of colors on human psychology;
- ✓ Create storyboard in Photoshop, Toon Boom and Storyboard Pro software;
- ✓ Color the storyboard in Photoshop;
- ✓ Describe the work profile of stroryboard artist;
- ✓ Descibe the storyboard for different media;
- ✓ Read the case study of various storyboards;
- ✓ Descibe and implement safe working practices in work area;

COURSE REQUIREMENTS: The learner should have the basic reading and writing skills in English and Hindi.

COURSE LEVEL: This is a beginner level course meant for class 9 and 10.

COURSE DURATION: **400 Hours** (Class 9 : 200 hrs, Class 10 : 200 hrs).

2. SCHEME OF UNITS AND ASSESSMENT

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

CLASS 9			
	Units	No. of Hours for Theory and Practical 200	Max. Marks for Theory and Practical 100
Part A	Employability Skills		
Unit 1	Communication Skills – I	20	10
Unit 2	Self-management Skills – I	10	
Unit 3	Basic ICT Skills – I	20	
Unit 4	Entrepreneurial Skills – I	15	
Unit 5	Green Skills – I	10	
	Total	75	10
Part B	Vocational Skills		
Unit 1	Planning and Visualising Storyboard	25	30
Unit 2	Storyboarding Tools and Techniques	30	
Unit 3	Drawing and Sketching Storyboard	40	
	Total	95	30
Part C	Practical Work		
	Practical Examination	6	15
	Written Test	1	10
	Viva Voce	3	10
	Total	10	35
Part D	Project Work/Field Visit		
	Practical File/ Student Portfolio	10	10
	Viva Voce	5	5
	Total	15	15
Part E	Continuous and Comprehensive Evaluation (CCE)	05	10
	Total Hours	200	100

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

CLASS 10			
	Units	No. of Hours for Theory and Practical 200	Max. Marks for Theory and Practical 100
Part A	Employability Skills		
Unit 1	Communication Skills – II	20	10
Unit 2	Self-management Skills – II	10	
Unit 3	Basic ICT Skills – II	20	
Unit 4	Entrepreneurial Skills – II	15	
Unit 5	Green Skills – II	10	
	Total	75	10
Part B	Vocational Skills		
Unit 1	Colors in Storyboarding	25	30
Unit 2	Digital Storyboarding	40	
Unit 3	Roles and Responsibilities of Storyboard Artist	15	
Unit 4	Occupational Health and Safety	15	
	Total	95	30
Part C	Practical Work		
	Practical Examination	6	15
	Written Test	1	10
	Viva Voce	3	10
	Total	10	35
Part D	Project Work/Field Visit		
	Practical File/ Student Portfolio	10	10
	Viva Voce	5	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 or teaching aids, such as audio-video materials, color 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

S.No.	Typology of Question	Very Short Answer (1 mark)	Short Answer (2 Marks)	Long Answer (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, provide an example, or solve a problem)	0	1	1	05
4.	High Order Thinking Skills – (Analysis & Synthesis – Classify, compare, contrast, or differentiate between different 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 questions)

SKILL ASSESSMENT (PRACTICAL)

Assessment of skills by the students should be done by the assessors/examiners on the basis of practical demonstration of skills by the candidate, using a competency checklist. The competency checklist should be developed as per the National Occupation Standards (NOSs) given in the Qualification Pack for the Job Role to bring about necessary consistency in the quality of assessment across different sectors and Institutions. The student has to demonstrate competency

against the performance criteria defined in the National Occupation Standards and the assessment will indicate that they are 'competent', or are 'not yet competent'. The assessors assessing the skills of the students should possess a current experience in the industry and should have undergone an effective training in assessment principles and practices. The Sector Skill Councils should ensure that the assessors are provided with the training on the assessment of competencies.

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

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

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

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

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 IX, Part A: Employability Skills

Unit No.	Units Name	Duration in Hours
Unit 1	Communication Skills – I	20
Unit 2	Self-management Skills – I	10
Unit 3	Basic ICT Skills – I	20
Unit 4	Entrepreneurial Skills – I	15
Unit 5	Green Skills – I	10
	Total	75

Unit 1: Communication Skills – I				
S. No.	Learning Outcome	Theory (08 Hours)	Practical (12 Hours)	20 Hrs
1.	Demonstrate knowledge of various methods of communication.	<ul style="list-style-type: none"> – Methods of communication. – Verbal. – Non-verbal. – Visual. 	<ul style="list-style-type: none"> – Writing pros and cons of written, verbal and non-verbal communication. – Listing do's and don'ts for avoiding common body language mistakes. 	05
2.	Identify elements of communication cycle.	<ul style="list-style-type: none"> – Meaning of communication – Importance of communication skills – Elements of communication cycle– – (i) sender, – (ii) ideas, – (iii) encoding, – (iv) communication channel, – (v) receiver, – (vi) decoding, and – (vii) feedback 	<ul style="list-style-type: none"> – Draw a diagram of communication cycle – Role plays on communication process related to the sector/job role. 	05
3.	Identify the factors affecting our perspectives in communication	<ul style="list-style-type: none"> – Perspectives in communication. – Factors affecting perspectives in communication. – Visual perception. – Language. – Past experience. – Prejudices. – Feelings. – Environment. 	<ul style="list-style-type: none"> – Group discussion on factors affecting perspectives in communication. – Sharing of experiences on factors affecting perspectives. – Sharing experiences on factors affecting communication at workplace. 	05
4.	Demonstrate the knowledge of basic writing skills	<ul style="list-style-type: none"> – Writing skills related to the following: – Phrases 	<ul style="list-style-type: none"> – Demonstration and practice of writing sentences and paragraphs on topics related 	05

		<ul style="list-style-type: none"> – Kinds of sentences – Parts of sentence – Parts of speech – Use of articles – Construction of a paragraph 	to the subject.	
			Total Duration in Hours	20

Unit 2: Self Management Skills – I

S. No.	Learning Outcome	Theory (07 Hours)	Practical (03 Hours)	10 Hrs
1.	Describe the meaning and importance of self-management.	<ul style="list-style-type: none"> – Meaning of self-management. – Positive results of self-management. – Self-management skills. 	<ul style="list-style-type: none"> – Identification of self-management skills – Strength and weakness analysis. 	05
2.	Identify the factors that helps in building self-confidence .	<ul style="list-style-type: none"> – Factors that help in building self-confidence – social, cultural, and physical factors – Self-confidence building tips - getting rid of the negative thoughts, thinking positively, staying happy with small things, staying clean, hygienic and smart, chatting with positive people, etc. 	<ul style="list-style-type: none"> – Role play exercises on building self-confidence. – Use of positive metaphors/ words. – Positive stroking on wakeup and before going bed. – Helping others and working for community. 	05
			Total Duration in Hours	10

Unit 3: Basic ICT Skills – I

Sn	Learning Outcome	Theory (10 Hours)	Practical (10 Hours)	20 Hrs
1.	Demonstrate the knowledge of the role of Information and Communication Technology (ICT) in day-to-day life and workplace	<ul style="list-style-type: none"> – Introduction to ICT – Role and importance of ICT in personal life and at workplace – ICT in our daily life (examples) – ICT tools – Mobile, tab, radio, TV, email, etc. 	<ul style="list-style-type: none"> – Discussion on the role and importance of ICT in personal life and at workplace. – Preparing posters / collages for showing the role of ICT at workplace 	04
2.	Identify components of basic computer system and their functions	<ul style="list-style-type: none"> – Computer system – Central Processing Unit (CPU), memory, motherboard, storage devices – Hardware and software of a computer system – Role and functions of Random Access – Memory (RAM) and Read 	<ul style="list-style-type: none"> – Connecting the cables and peripherals to the Central Processing Unit – Starting and shutting down a computer – Group discussion on the various aspects of hardware and software 	07

		<ul style="list-style-type: none"> – Only Memory (ROM) – Role and functions of Central Processing Unit – Procedure for starting and shutting down a computer 		
3.	Demonstrate use of various components and peripherals of computer system	<ul style="list-style-type: none"> – Peripherals devices and their uses – mouse, keyboard, scanner, webcam, etc. of a computer system 	<ul style="list-style-type: none"> – Identification of various parts and peripherals of a computer – Demonstration and practice on the use of mouse – Demonstration and practice on the use of keyboard – Demonstration of the uses of printers, webcams, scanner and other peripheral devices – Drawing diagram of computer system and labeling it 	05
4.	Demonstrate basic computer skills	<ul style="list-style-type: none"> – Primary operations on a computer system – input, process, storage, output, communication networking, etc. 	<ul style="list-style-type: none"> – Identification of the various input and output units and explanation of their purposes 	04
			Total Duration in Hours	20

Unit 3: Basic ICT Skills – II

Sn	Learning Outcome	Theory (10 Hours)	Practical (10 Hours)	20 Hr s
1.	Distinguish between different operating systems	<ul style="list-style-type: none"> – Classes of operating systems – Menu, icons and task bar on the desktop – File concept, file operations, file organization, directory structures, and file-system structures – Creating and managing files and folders 	<ul style="list-style-type: none"> – Identification of task bar, icons, menu, etc. – Demonstration and practising of creating, renaming and deleting files and folders, saving files in folders and sub-folders, restoring files and folders from recycle bin 	17
2.	Apply basic skills for care and maintenance of computer	<ul style="list-style-type: none"> – Importance and need of care and maintenance of computer – Cleaning computer components – Preparing maintenance schedule – Protecting computer against viruses – Scanning and cleaning viruses and removing SPAM files, temporary files and 	<ul style="list-style-type: none"> – Demonstration of the procedures to be followed for cleaning, care and maintenance of hardware and software 	03

		folders		
			Total Duration in Hours	20
Unit 4: Entrepreneurial Skills – I				
Sn	Learning Outcome	Theory (06 Hours)	Practical (09 Hours)	15 Hr s
1.	Identify various types of business activities	<ul style="list-style-type: none"> – Types of businesses – service, manufacturing, hybrid. – Types of businesses found in our community Business activities around us. 	<ul style="list-style-type: none"> – Prepare posters of business activities found in cities/ villages, using pictures. – Discuss the various types of activities, generally adopted by small businesses in a local community. – Best out of waste. – Costing of the product made out of waste. – Selling of items made from waster materials. – Prepare list of businesses that provides goods and services in exchange for money. 	09
2.	Demonstrate the knowledge of distinguishing characteristics of entrepreneurship	<ul style="list-style-type: none"> – Meaning of entrepreneurship development. – Distinguishing characteristics of entrepreneurship. – Role and rewards of entrepreneurship. 	<ul style="list-style-type: none"> – Prepare charts showing advantages of entrepreneurship over wages. – Group discussions on role and features of entrepreneurship. – Lectures/presentations by entrepreneurs on their experiences and success stories. – Identify core skills of successful entrepreneur. 	06
			Total Duration in Hours	15

Unit 5: Green Skills – I				
Sn	Learning Outcome	Theory (03 Hours)	Practical (07 Hours)	10 Hrs
1.	Demonstrate the knowledge of the factors influencing natural resource conservation.	<ul style="list-style-type: none"> – Introduction to environment. – Relationship between society and environment, ecosystem and factors causing imbalance. – Natural resource conservation. – Environment protection and conservation. 	<ul style="list-style-type: none"> – Group discussion on hazards of deteriorating environment. – Prepare posters showing environment conservation. – Discussion on various factors that influence our environment. 	05
2.	Describe the importance of green	<ul style="list-style-type: none"> – Definition of green economy – Importance of green 	<ul style="list-style-type: none"> – Discussion on the benefits of green skills and importance of 	05

	economy and green skills.	economy	green economy. – Prepare a Poster showing the importance of green economy with the help of newspaper/ magazine cuttings.	
			Total Duration in Hours	10

Class IX, Part B: Vocational Skills

Unit No.	Unit Name	Duration in Hours
Unit 1	Planning and Visualising Storyboard	25
Unit 2	Storyboarding Tools and Techniques	30
Unit 3	Drawing and Sketching Storyboard	40
	Total Duration	95

Unit 1. Planning and Visualising Storyboard				
Sn	Learning Outcome	Theory (10 Hours)	Practical (15 Hours)	25 Hrs
1.	Describe the the basics of storyboarding	<ul style="list-style-type: none"> History and evolution of storyboarding, Examples of storyboard for animated movies, Use of storyboard as preproduction for animation and films, Software and hardware requirement of storyboarding. 	<ul style="list-style-type: none"> Collect the history of storyboarding, List the various examples of storyboard for animated movies, Visualise the storyboard as preproduction for animated movies, List the software and hardware requirement for preparation of storyboard. 	5
2.	Identify different animation types to understand storyboard requirement	<ul style="list-style-type: none"> Types of animation – Hand drawn animation, Computer generated animation, Stop motion animation, Animation development chart. 	<ul style="list-style-type: none"> Draw a flowchart for development of animation, Visualize a scene from text, Draw a rough sketch from the scene visualised. 	5
3.	Describe different types of storyboards and their application area	<ul style="list-style-type: none"> Types of storyboards – Editorial or Production boards, Concept panels, Commercial boards, Graphic novels and Comic boards, Game boards, Website navigation panels Application area of different types of storyboard. 	<ul style="list-style-type: none"> List the comparative features of different types of storyboard, Identify the given storyboard into appropriate type, Identify the application area of a given storyboard in different media. 	5
4	Breakdown the script into scenes and shots	<ul style="list-style-type: none"> Elements of script – locations, characters, dialogue, actions, 	<ul style="list-style-type: none"> Read the script and identify the elements of script, 	5

		<ul style="list-style-type: none"> – Techniques to breakdown the script into scenes and shots, – Creating thumbnails from the scenes of the script. 	<ul style="list-style-type: none"> – Breakdown the given script into scenes and shots, – Sketch the thumbnail for the given scene. 	
5	Describe the shot description in storyboard	<ul style="list-style-type: none"> – Shot description in storyboard – camera angle, shot number, depth, duration, action, dialogue, audio. 	<ul style="list-style-type: none"> – Identify the various shot description in a given storyboard. 	5
			Total Duration in Hours	25

Unit 2. Storyboardig Tools and Techniques

Sn	Learning Outcome	Theory (10 Hours)	Practical (20 Hours)	30 Hrs
1	Describe the storyboarding production process	<ul style="list-style-type: none"> – Members of production team – Director, Director of Photography (DOP), Producer, Production Designer – Roles and responsibilities of members of production team, – Information required to create a storyboard – location or set related photographs, Prop and wardrobe illustrations and photographs, aspect ratio – Storyboarding steps – rough storyboards, working storyboards, presentation storyboards, animatic/ Leica Reel. 	<ul style="list-style-type: none"> – Observe the various activities coordinated by the production team members with storyborad artist, – List the information required to create a storyboard, – Identify and name the steps of given storyboard. – 	10
2.	Describe the cinamatic techniques used to create storyboard	<ul style="list-style-type: none"> – Types of shots sizes – Extreme long shot (ELS), Long shot (LS), Medium shot (MS), Medium Long Shot (MLS), Close up(CU), Extreme Close-up (ECU), Up Shot, Down shot, Character Shots, Over-the-shoulder (OTS), Point of view (POV), – Camera angles – Low angle, High angle, Dutch angle, – Camera movements – Pan, Track, Dolly, Rotation, Rack focus, – Types of scene – Active scene, passive scene, Dialogue, Montage and silhouette, – Types of transitions – Cross Dissolve, Dissolve ripple, Wipe, Fade to black 	<ul style="list-style-type: none"> – Identify the type of shot from the given scene, – Draw the given shot size by visualizing the scene or as per the given situation, – Identify the camera angle from the given scene, – Draw the given camera angle by visualizing the scene, – Identify the camera movement from the given scene, – Identify the scene from the given story or situation, – – 	10
3.	Describe the different sketching	<ul style="list-style-type: none"> – Sketching tools – Pencil and paper, 	<ul style="list-style-type: none"> – Use different pencil shades and analyze its quality. 	10

	tools	<ul style="list-style-type: none"> – Different types of pencil – Sketching techniques – Line and tone drawing, Texture and purpose. 	<ul style="list-style-type: none"> – Sketch an eye using a pencil. – Use of shade chart for sketching. – Observe different paper material used in sketching. – Draw a realistic human face. – Create different types of Texture through shading. 	
			Total Duration in Hours	30

Unit 3: Drawing and Sketching Storyboard

SN	Learning Outcome	Theory (15 Hours)	Practical (25 Hours)	40 Hrs
1.	Sketch the object through observation and recording	<ul style="list-style-type: none"> – Simple drawing technique – straight line and circle, – Sketching through observation and recordings, – Landscape sketching, – Landforms sketching, – Water bodies sketching, – Different types of gestures and actions of human. 	<ul style="list-style-type: none"> – Draw and practice straight lines and circles, – Perform sketching through observing an object or scene, – Observe trees around you and list down the fine detailing of its characteristics, – Draw a tree without foliage and with foliage, – Observe and draw tree leaves shades and pattern, – Draw simple expressions of landform, – Draw simple expressions of water, – Use shading technique of land and water in waterbody sketching, – Draw different gesture and action of human characters. 	10
2.	Draw the human character	<ul style="list-style-type: none"> – Human characteristics, – Drawing characters using basic shapes – circles, ovals, square, rectangle, triangles, – Drawing character's face using basic shapes, – Key points to draw a character, – Minimum Viable Character (MVC) – Proportion, seven figure drawing proportion 	<ul style="list-style-type: none"> – Draw Mickey Mouse using circles and ovals, – Draw side view face using circles, – Draw front view face using circles, – Draw perspective view face using circles, – Draw evil character using triangle, – Draw Minimum Viable Character for tall, thin, wider, women character, – Draw a realistic human body proportionally 	8
3.	Draw perspective drawings	<ul style="list-style-type: none"> – Perspective – one point, two 	<ul style="list-style-type: none"> – Draw an object in one point, two point and three point 	6

		point, three point perspective, – Multi-view drawings, Multi-view drawing of a box – Proportion in perspective drawing.	perspective, – Create Multi-view drawing of a box and chair, – Draw proportionate detail of a box.	
4.	Perform shading and lighting on object	– Different Pencil grades from 9H to 9B, – Shading techniques – Hatching, Cross Hatching, Circulism, and Contour Shading, – Tips and Tricks for Pencil Shading – Good pressure control, tight strokes, shadow lining, reduce white spots, remove black dots, blend, Increasing range of motion, – Lighting effect on sketching – Center light, highlight and mid tone, core shadow and reflected light, – Lighting for different planes.	– Practice pencil shading using pressure control technique, – Practice different shading techniques, – Draw a series of squares with decreasing width and shade them with vertical strokes, – Use different tips and tricks for pencil shading, – Create lighting effects on sketch by using Highlights, Mid tone and Shadows, – Identify the different planes of the given figure and sketch it for different lighting arrangements.	8
5.	Create a storyboard	– Creating a template for storyboard, – Creating a storyboard using script.	– Create a template for storyboard, – Create a storyboard for given story including two characters and one environment.	8
Total Duration in Hours				40

Class X, Part A: Employability Skills

Unit No.	Unit Name	Duration in Hours
Unit 1	Communication Skills	20
Unit 2	Self-management Skills	10
Unit 3	Basic ICT Skills	20
Unit 4	Entrepreneurial Skills	15
Unit 5	Green Skills	10
Total		75

Unit 1: Communication Skills – II				
Sn	Learning Outcome	Theory (12 Hours)	Practical (08 Hours)	20 Hrs
1.	Demonstrate knowledge of various methods of communication.	– Methods of communication – Verbal. – Non-verbal. – Visual.	– Writing pros and cons of written, verbal and non-verbal communication – Listing do's and don'ts for avoiding common body	04

			language mistakes	
2.	Provide descriptive and specific feedback.	<ul style="list-style-type: none"> – Communication cycle and importance of feedback. – Meaning and importance of feedback. – Descriptive feedback - written comments or conversations. – Specific and non-specific feedback. 	<ul style="list-style-type: none"> – Constructing sentences for providing descriptive and specific feedback. 	04
3.	Apply measures to overcome barriers in communication.	<ul style="list-style-type: none"> – Barriers to effective communication – types and factors. – Measures to overcome barriers in effective. Communication. 	<ul style="list-style-type: none"> – Enlisting barriers to effective communication. – Applying measures to overcome barriers in communication. 	04
4.	Apply principles of communication.	<ul style="list-style-type: none"> – Principles of effective communication. – 7 Cs of effective communication. 	<ul style="list-style-type: none"> – Constructing sentences that convey all facts required by the receiver. – Expressing in a manner that shows respect to the receiver of the message – Exercises and games on applying 7Cs of effective communication. 	04
5.	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. 	04
			Total Duration in Hours	20

Unit 2: Self-management Skills – II

Sn	Learning Outcome	Theory (05 Hours)	Practical (05 Hours)	10 Hr s
1.	Apply stress management techniques	<ul style="list-style-type: none"> – Meaning and importance of stress management – Stress management techniques – physical exercise, yoga, meditation – Enjoying, going to vacations and holidays with family and friends – Taking nature walks 	<ul style="list-style-type: none"> – Exercises on stress management techniques – yoga, meditation, physical exercises. – Preparing a write-up on an essay on experiences during a holiday trip. 	04
2.	Demonstrate the ability	– Importance of the ability to	– Demonstration on working	06

	to work independently	work independently. – Describe the types of self-awareness. – Describe the meaning of self-motivation and self-regulation.	independently goals. – Planning of an activity Executing tasks in a specific period, with no help or directives. – Demonstration on the qualities required for working independently.	
			Total Duration in Hours	10

Unit 3: Basic ICT Skills – II

Sn	Learning Outcome	Theory (10 Hours)	Practical (10 Hours)	20 Hr s
3.	Distinguish between different operating systems	– Classes of operating systems – Menu, icons and task bar on the desktop – File concept, file operations, file organization, directory structures, and file-system structures – Creating and managing files and folders	– Identification of task bar, icons, menu, etc. – Demonstration and practising of creating, renaming and deleting files and folders, saving files in folders and sub-folders, restoring files and folders from recycle bin	17
4.	Apply basic skills for care and maintenance of computer	– Importance and need of care and maintenance of computer – Cleaning computer components – Preparing maintenance schedule – Protecting computer against viruses – Scanning and cleaning viruses and removing SPAM files, temporary files and folders	– Demonstration of the procedures to be followed for cleaning, care and maintenance of hardware and software	03
			Total Duration in Hours	20

Unit 4: Entrepreneurial Skills – II

Sn	Learning Outcome	Theory (06 Hours)	Practical (09 Hours)	15 Hrs
1.	List the characteristics of successful entrepreneur	– Entrepreneurship and society. – Qualities and functions of an entrepreneur. – Role and importance of an entrepreneur. – Myth about entrepreneurship. – Entrepreneurship as a career option.	– Writing a note on entrepreneurship as career option. – Collecting success stories of first generation and local entrepreneurs. – Listing the entrepreneurial qualities – analysis of strength	15

			and weaknesses. – Group discussion of self-qualities that students feel are needed to become successful entrepreneur. – Collect information and related data for a business. – Make a plan in team for setting up a business.	
			Total Duration in Hours	15

Unit 5: Green Skills – II

Sn	Learning Outcome	Theory (07 Hours)	Practical (03 Hours)	10 Hrs
1.	Demonstrate the knowledge of importance, problems and solutions related to sustainable development	– Definition of sustainable development. – Importance of sustainable development. – Problems related to sustainable development.	– Identify the problem related to sustainable development in the community. – Group discussion on the importance of respecting and conserving indigenous knowledge and cultural heritage. – Discussion on the responsibilities and benefits of environmental citizenship, including the conservation and protection of environmental values. – Preparing models on rain water harvesting, drip / sprinkler irrigation, vermin-compost, solar energy, solar cooker, etc.	10
			Total Duration in Hours	10

Part B: Vocational Skills

Unit No.	Unit Name	Duration in Hours
Unit 1	Colors in Storyboarding	25
Unit 2	Digital Storyboarding	40
Unit 3	Roles and Responsibilities of Storyboard Artist	15
Unit 4	Occupational Health and Safety	15
	Total Duration	95

Unit 1: Colors in Storyboarding

Sn	Learning Outcome	Theory (10 Hours)	Practical (15 Hours)	25 Hrs
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1	Describe the importance of colours	<ul style="list-style-type: none"> – Basics of colour, – Perception of color, – Concept of light and reflected light, – Role of color in storyboard, – Color terminology – Hue, saturation and value, – Color script. 	<ul style="list-style-type: none"> – Observe Hue, saturation and brightness and their impact in the given animated movies, – Identify the colors in the given colour script of animated movie 	8
2	Describe the colour theory	<ul style="list-style-type: none"> – Types of colors – primary, secondary and tertiary colors, – Different colors in color wheel, – Color's property – Hue, Tint, Tone, Shade – Additive and subtractive color theory – Colour Relativity – Colour Harmony – monochromatic, analogous, complementary, triadic, split complementary color, – Digital color tools – Adobe color, illustrator color guide – Color boards. 	<ul style="list-style-type: none"> – Identify and categorise colors of the given object into primary, secondary and tertiary colours, – Create secondary color by mixing primary colors using colour pen, paint or digital colour, – Draw a colour wheel and name the colors, – Observe the color relativity by overlapping two color circles and changing the color value of background circle, – Observe the given movie for color harmony. – 	10
3	Describe the impact of colors on human psychology	<ul style="list-style-type: none"> – Impact of different colors in film – Colors of superheroes, – Cool colors and warm colors – Color guide, colour palette and its impact 	<ul style="list-style-type: none"> – List out different colors with its corresponding impact on emotions and behaviors. – Identify the colors for the given situation in the film. 	7
Total Duration in Hours				25

Unit 2: Digital Storyboarding

Sn	Learning Outcome	Theory (15 Hours)	Practical (25 Hours)	40 Hrs
1.	Describe the digital Storyboarding Software	<ul style="list-style-type: none"> – Hand drawn storyboarding, – Advantage and disadvantage, – Concept of digital storyboards, – Digital storyboarding software – Adobe Photoshop, Storyboard Pro, Storyboard that, Shot PRO, Storyboarder. 	<ul style="list-style-type: none"> – Create a hand drawn line art based storyboard of each and every shot of the given story, – List the distinguishing features of storyboarding software, – Start the given storyboarding software and work on its interface. 	6
2	Create storyboard in Photoshop	<ul style="list-style-type: none"> – Starting and exploring the user interface of Photoshop software, – Setting up the document, 	<ul style="list-style-type: none"> – Start the Photoshop software and explore its interface, – Practice the various tools and option to accomplish various 	8

		<ul style="list-style-type: none"> – Setting-up shortcuts, – Use of brush tool, – Creating storyboarding in Photoshop, – Rendering and exporting the final storyboard. 	<ul style="list-style-type: none"> task, – Create a sample storyboard for the given story in Photoshop. 	
3	Create storyboard in Toon Boom Storyboard Pro software	<ul style="list-style-type: none"> – Features of Toon Boom Storyboard Pro software, – Terminology in Toon Boom Storyboard Pro, – Options in user interface of Toon Boom Storyboard Pro – Layer Panel, Thumbnail view, Timeline view, – Creating new scene for storyboard. 	<ul style="list-style-type: none"> – Starting and working on Toon Boom Storyboard Pro, – Explore the user interface of Toon Boom Storyboard Pro and try various options, – Adding a view to workspace, – Dock a selected view to workspace, – Add or create scenes and panels, – Add a new panel inside a scene to the storyboard, – Duplicate the selected panel, – Create a storyboard for a given story. 	10
4	Create storyboard in Storyboard Pro	<ul style="list-style-type: none"> – Features and user interface of Storyboard pro software, – Creating new panel, new scene or duplicate selected panels, – Using key frames and camera properties of Storyboard Pro software 	<ul style="list-style-type: none"> – Explore the user interface of Storyboard pro software with various options and its uses, – Use drawing and layer panel tools, – Adding a bitmap or vector layer, – Draw the drawing for given story using pencil tool, camera view, – Add shades and texture to drawing of storyboard, – Add camera animation and sound clip in storyboard, – Export the storyboard project to the image or video format. 	10
5.	Color the storyboard in Photoshop	<ul style="list-style-type: none"> – Lighting and coloring in photoshop – Coloring, texturing and rendering storyboard, – Using adjustment layers for coloring the storyboard., 	<ul style="list-style-type: none"> – Use the different color tools in photoshop for coloring the storyboard, – Color the given frame of storyboard using color tool in Photoshop. 	6
			Total Duration in Hours	40

Unit 3. Roles and Responsibilities of Storyboard Artist

Sn	Learning Outcome	Theory (5 Hours)	Practical (10 Hours)	15 Hrs
1.	Describe the work profile of	– Work area of storyboard artist,	– Explore and list the work area of	5

	storyboard artist	<ul style="list-style-type: none"> – Portfolio of storyboard artist, – Creating portfolio of storyboard artist, – Knowledge and skills required by storyboard artist, – Scope of the work of storyboard artist, 	storyboard artist, <ul style="list-style-type: none"> – Create an appropriate portfolio of storyboard artist, – Define the knowledge and skill required by storyboard artist, – Define the scope of work of storyboard artist. 	
2	Describe the storyboard for different media	<ul style="list-style-type: none"> – Different Media of storyboard – Film, Theater, Animatic, Comic books, Presentation Board, Architecture studios, Interactive media, Software, – Benefits of storyboarding in various media. – Storyboards in Education – Storyboards in Hollywood – Guideline for creating storyboarding 	<ul style="list-style-type: none"> – List the features of different media of storyboard, – List the benefits of storyboarding in different media, – Compare the storyboard of different media. 	5
3.	Read the case study of various storyboards	<ul style="list-style-type: none"> – Case study of different types of movie genre – Sci-Fi, Drama, Horror, Fantasy, – Case studies of storyboard – Television show, Animation, Video games. 	<ul style="list-style-type: none"> – Identify and name the given movie genre into Sci fi, Drama, Horror, Fantasy, – Analyze the drawings, color, camera angles, shot size, texture, and visual presentation of storyboard in the different types of movie genre. 	5
Total Duration in Hours				15

Unit 4. Occupational and Workplace Health and Safety

Sn	Learning Outcome	Theory (5 Hours)	Practical (10 Hours)	15 Hrs
1.	Describe and implement safe working practices in work area	Work environment for storyboard artist, Required resources for storyboard artist, Health, safety and security at work place, General safety rules in the studio, Workplace safety hazards – physical, electrical, fire hazards, Potential sources of hazards, Hazards while using computers, Hazard control process, Safety guidelines and checklist, Evacuation and conditions for evacuation Fire extinguisher	Observe an animation and gaming studio and list out the requirements and work environment, Practice the proper and efficient use of computer, Draw the flowchart for fire evacuation, Demonstrate the operation of a fire extinguisher in fire emergency, Identify and draw the fire equipment symbols and safe condition symbol.	8
2.	Administer medical	Medical emergency situations –	Prepare the list of various medical	7

emergency and first aid	bleeding, shock, muscle cramps, fractures, dislocation, sprain, First aid kit items and its usage.	emergency situations and solutions to resolve it, Identify and list the various items in the First aid kit Practice to use the first aid kit, Use the first aid kit for the given situatio.	
		Total Duration in Hours	15

6. ORGANISATION OF FIELD VISITS

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

Visit the animation and gaming studio and observe the following: Location, Site, Office building, Computer systems, Storyboard software, Drawing tools, Printer, Scanner. During the visit, students should obtain the following information from the owner or the supervisor of the studio.

1. Material required for story-boarding,
2. Computer Infrastructure.
3. Hardware and software requirement for digital story-boarding,
4. Information about production pipeline,
5. Information about hand drawn story-boarding and material required,
6. Sitting posture while working on computer,
7. Preview of ongoing work,
8. Manpower engaged
9. Total expenditure for creating hand drawn and computerized storybord,
10. Total annual income.
11. Profit/Loss (Annual)
12. Any other information

7. LIST OF EQUIPMENT AND MATERIALS

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

Item Name, Description & Specification	Quantity
Material required for hand drawn storyboard	
Different sets of pencils 9H to 9B	1 set per student
Charcol pencil	1 per student
Eraser	1 per student
Sharpener	1 per student
Paper cutter	1 per student
Different size of papers (50 to 110 pounds)	5 per student
Color pencils	1 set per student
Color pens	1 set per student
Color and brush	1 set per student
Shading stump	1 per student
HARDWARE	
Computer with latest configuration or minimum Pentium Processor with 8 GB RAM, 1 TB HDD, 17" LED Monitor, NIC	One computer per student

Card, Graphics Card, 3 button Mouse, 105 keys key board and built-in speakers and mic, UPS Drawing board Touch-pad and Digital Pen Color Laser Printer Scanner Air Conditioner 1.5 tonne Telephone line (For Internet). Fire extinguisher	One for each student 1 set per student One for lab One for lab One for lab One for lab One for lab
SOFTWARE	
Operating System Windows 10 Anti Virus Latest version LibreOffice or MS Office latest version Adobe Photoshop Storyboard Pro	One for each system One for each system One for each system One for each system One for each system
FURNITURE	
Class room chairs and desks Computer Table Computer Chairs Drawing table Printer Tables Trainers Table Steel cupboards drawer type Cabinet with drawer Steel almirah big size Steel almirah small size	One for each student One for each student One for each student One for each student One One One One One One

8. VOCATIONAL 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:

Qualification	Minimum Competencies	Age Limit
Bachelor's degree in Fine Arts / Graphics and Animation. Desirable: Knowledge and skills in storyboarding.	The candidate should have minimum 1 year of work experience. Good communication skills in English and local language.	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:

- (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:

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