

**Leading and Integrating Pre-Vocational & Vocational Education with Academic streams:
Creating a New Generation of Entrepreneurs in J&K**

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Leading and Integrating Pre-Vocational & Vocational Education with Academic streams: Creating a New Generation of Entrepreneurs in J&K

“All students deserves to access to an education that prepares them to succeed outside the classroom”

Learning Objective

1. To develop Knowledge, skills, attitudes of school leaders in leading initiatives taken for integration of vocational education with general education.
2. To develop understanding of Vocation Education by describing the historical background and policy recommendations on vocational education in India.
3. To lead the pre-vocational and vocation education in school of J & K as by NEP.

Keywords: NEP, Pre-Vocational Education, Vocational Education, NSQF,

Introduction

Vocational Education in the form of Skill, Entrepreneurship Development & Employment ability is the driving forces of economic growth and social development for any country. Presently, the India faces a demand – supply mismatch, as the economy needs more ‘skilled’ workforce than that is available.

The pre-vocational level, there is integration of work based activities with teaching learning process rather than a separate add on subject. In the curriculum the Fun based activities, Informal internship-bagless, What people really do for vocations, Dignity of labour, mindset, different occupation in the world of work and skills are required.

The Vocational Education Scheme has been introduced at Secondary and Senior secondary level in J & K, under the centrally sponsored scheme Samagra Shiksha. The funding pattern is 90:10 (Central: State). It is implemented under National Skill Qualification Framework- NSQF, with two 02 Trades per school. The course is to be selected for class IX & X and class XI & XII preferably in the same sector with increase in levels as prescribed in NSQF.

Historical Perspective

The Gurukul system in which students learnt life skills, vocational skills and knowledge related to the discipline was prevalent during that period. The ideas and perceptions of various philosophers and thinkers and the recommendations of various committees and commissions not only shaped the national education system, but also highlighted the need and importance of vocationalisation of education in enhancing individual employability and

national productivity. The need for a formal system of vocational education can be traced back to 1854, when Lord Charles Wood prepared a despatch, popularly known as “Woods Despatch”, on the educational system for India which came to be known as the “Magna Carta” of education in the country. The Gandhian philosophy of Nai Talim, in principle states that knowledge and work are not separate. The three basic pillars of Gandhi's pedagogy were its focus on the *lifelong character* of education, its *social character* and its form as a *holistic process*. The guiding principles of National Curriculum Framework (NCF 2005) were relevance of curriculum with context, democratic values, strengthening national system of education and reducing curriculum load-making exams part of classroom activity- child centred pedagogy. The central idea of Nai Talim is to overcome the distinctions between learning and teaching, and knowledge and work. The Gandhi Ji promoted education based on the educational principle which states that knowledge and work are not separate. “By Education I mean an alround drawing of the best in child and man in body mind and spirit” Mahatma Gandhi. He stressed on Handicrafts, art and drawing most fundamental teaching tools, Engaging young minds, and Create free and enlightened individuals good society.

The RadhaKrishnan Commission (1948) emphasised the need to give a vocational basis to the courses of education, while as Secondary Education Commission (Mudaliar Commission 1952-53) recommended diversification of education, resulting in establishment of multipurpose schools. Promote technical skill and efficiency at all stages. The Education Commission (1964-66)-envisaged the introduction of 10+2+3 pattern and stressed that +2 stage should be regarded not merely as college preparatory but as a period of preparing an increasingly large number of school leavers for different vocations of life. Recommended vocational education for both lower and higher secondary stage.

NPE (1968)- Vocational Education Programme 1976-77 in general education institutions, to meet the manpower requirements of the unorganised sector of the economy, Ishwarbhai Patel Committee Report (1977) – relating work and learning in the curriculum as Socially Useful Productive Work (SUPW), and Kulandaiswamy Committee (1985)- Reviewed VEP and its recommendation led to the initiation of CSS of Voc. Sec. Edu.

National Policy on Education (1986) - ‘work experience’ as an essential component at all the stages of education and accorded high priority to vocational education, which was introduced as a distinct stream at +2 level, to prepare students for identified occupations spanning into several areas of activity.

National Policy on Education-1986 as also in its modified version of 1992- “Work-experience organised as an integral part of the learning processwould comprise activities in accord with the interests, abilities and needs of students, the level of skills and knowledge to be upgraded with the stages of education. This experience would be helpful on his entry into the workforce. Pre-vocational programmes provided at the lower secondary stage will also facilitate the choice of the vocational course at the higher secondary stage.”

NCF 2000: emphasis on work education, pre- vocational and vocational education. Focus on the vast unorganised sector and NCF-2005: gives place to competencies. Specifies that competencies, should be acquired by a child throughout the primary and middle stages of Education.

NEP 2020

Pre- vocational Education

Vocationalisation of Education

Activity 1

Group Discussion

Objective

To orient the participants on developing an understanding of the importance of work based education.

Procedure

- *Form groups with three trainees in each group.*
- *Ask each group to discuss on the historical perspectives on work based education and vocational education.*
- *Each group shares their knowledge on the events that followed during pre-independence and post-independence which led to the development of vocational education in India.*

Activity 2

Who am I?

Objective

To expose the trainees to a variety of occupations in the world of work the tasks performed by people working in these occupations.

Procedure

- *Trainees are divided into two or more teams with equal number of members.*
- *Each team is given some names of the occupations, like mason, carpenter, plumber, technician for home appliances, floriculturist, micro irrigation technician, beauty therapist, gardener, solar power technician, etc.*
- *The team members will write the tasks performed by the persons in different occupations. A member from the team shall come forward and state the task(s) performed by a skilled person.*
- *The other team members shall guess the occupation. Points shall be given for each right guess.*
- *The other team members shall then come forward and the game shall continue, Self-assessment.*

1. What are the two major suggestions given by Wood and Abbot Commission (1936) for elevating the status of vocational education?

2. Why the commissions before and after independence of India suggested the need to give due importance to vocational Education?

Need Analysis

- 12th Five year plan 5% indian workforce in age group 19-24 years compared to USA 52% Germany 75% & S Korea 96%.
- Total Population - 1.2 billion and 672 million people are in the age-group 15 to 59 years -“working age population”. Between 2010-2030 India would have largest share of working age population -Demographic Dividend.
- World’s youngest Pop. - 53% below 25 yrs. By 2020, the average Indian will be only 29 years old, compared to 37 years in China and US; 45 years in West Europe; and 48 years in Japan (U.S. Census Bureau; BCG Analysis , 2010).
- Ageing economy phenomenon will globally create a skilled manpower shortage of approximately 56.5 million by 2020 and India will have a skilled manpower surplus of approximately 47 million.

The NEP 2020 talks about integration of the Vocational Education at all Levels in education. The NEP 2020 focus on practice based curriculum, for grades 6-8 with proper need analysis and mapping of local opportunities in accordance to NSQF, with detailed description for each vocation/profession. In order to meet the target fixed by NEP & SARTHAQ, that 50% of learners shall have exposure to vocational education.

Objectives

1. *To develop understanding of Pre-Vocational & Vocational Courses with reference to NEP 2020.*
2. *To deliberate of implementation challenges of NSQF & KAUSHAL.*
3. *To discuss challenges & opportunities in IT/ITeS & Retail Vocational Courses.*

Combining Classroom with Workplace Learning

Formal apprenticeships are a common way to combine classroom with workplace learning; such programs are often referred to as “learning while earning.” While as Successful job training programs are typically based on strong ties with employers, with curriculums taught by teachers who have both industry experience and up-to-date pedagogical expertise.

Making Student support support services and comprehensive information available for decision making

Career information is an important part of training programs, helping students identify opportunities, stay on course, and transition into a career. The Career information can be especially useful for students who lack family or social networks that the Students entering the workforce need better critical thinking and socio emotional skills. The ability to use technology is one way for them to take advantage of technological advancement.

NEP 2020

Awareness, clear pathways

Prevocational Education

Proper integration at secondary level and further expansion-no hard separation

Strengthening ODL system

Proper mapping

Incubation centres

Target of 50 % by 2025

Teacher Education , Teacher Training

RPL

Integration of work based activities with teaching learning process rather than a separate add on subject

Fun based activities

Informal internship-bagless

What people really do for vocations

Dignity of labour, mindset

Different occupation in the world of work and skills required

Awareness explore preparation

Pre-Vocational Education

Soft Skills

Soil testing

Identification of pests

Mushroom Cultivation

Vermi composting

Preparation of Bakery

Milking of Dairy Animals

Fish rearing

Paper work

Book binding

Vocational Education

VE at Secondary and Senior secondary level is a centrally sponsored scheme under Samagra Shiksha.

Funding pattern is 90:10 (Central: State).

Programme implemented in secondary & senior secondary under National Skill Qualification Framework-NSQF.

02 Trades per school.

Course is to be selected for class IX & X and class XI & XII preferably in the same sector with increase in levels as prescribed in NSQF.

40 students in each sector.

Each course will cover in a span of two years.

Vocationalization of Secondary Education

The Centrally Sponsored Scheme of Vocationalisation of Higher Secondary Education was approved in Sep 2011.

National Vocational Qualification Framework issued by the Ministry in Sep, 2012.

Key areas of focus- Emphasis on output, close involvement of industry, vertical and horizontal mobility, quality assurance, international equivalence and lifelong learning.

Pilot launched in Haryana in Sep 2012

Scheme from April 2013 subsumed under the Umbrella of RMSA now Samagra

Dec 2013 NVEQF assimilated in NSQF

National Skills Qualifications Framework (NSQF)-

NSQF is a quality assurance Framework, organizing Qualifications according to levels of competencies (professional knowledge, professional skills, core skills and responsibilities). The Levels are defined in terms of learning outcomes which the learner must possess regardless of how learning happens (focus shifts from learning inputs to outcomes) Also NSQF provides for horizontal & vertical mobility between General & vocational.

Key Objectives of NSQF

Shift to outcomes-based approach: each NSQF level is defined in terms of competency levels that would need to be achieved.

Facilitating vertical & horizontal mobility + making transparent progression pathways to institutes, students, employers.

Establishing equivalence of various qualifications - certificates/diplomas/degrees.

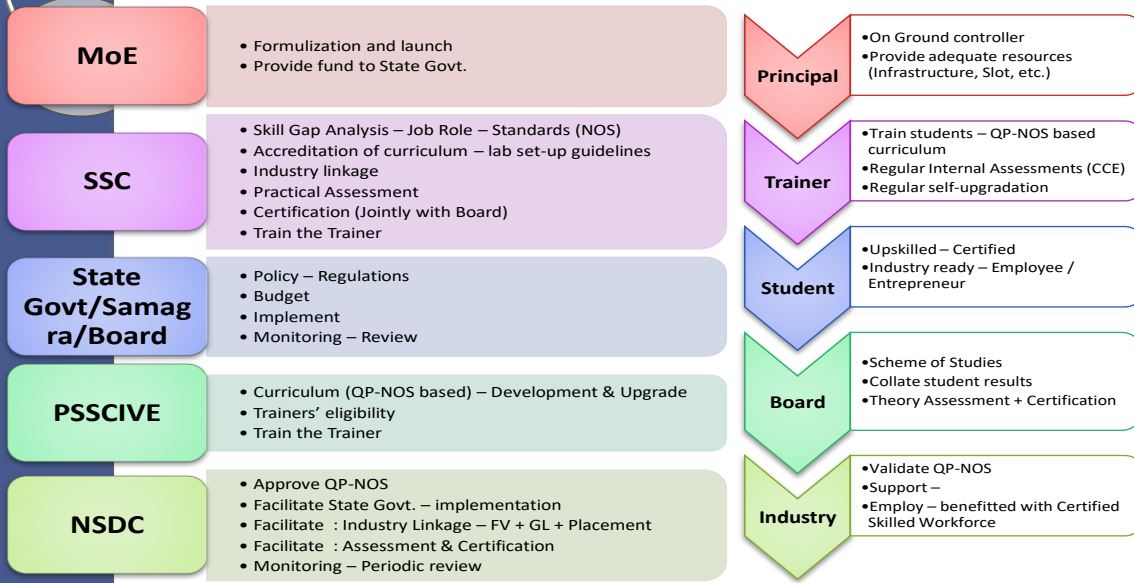
Development of quality qualifications that also permit acquisition of higher qualifications, including degrees & doctorates.

Being a competency-based & outcomes based qualification framework, NSQF will facilitate Recognition of Prior Learning (RPL)

Facilitating international mobility by aligning Indian qualifications to international qualifications.

Facilitating a system of credit accumulation & transfer system, allowing people to move between educational, vocational and work streams.

Major Stakeholders – NSQF

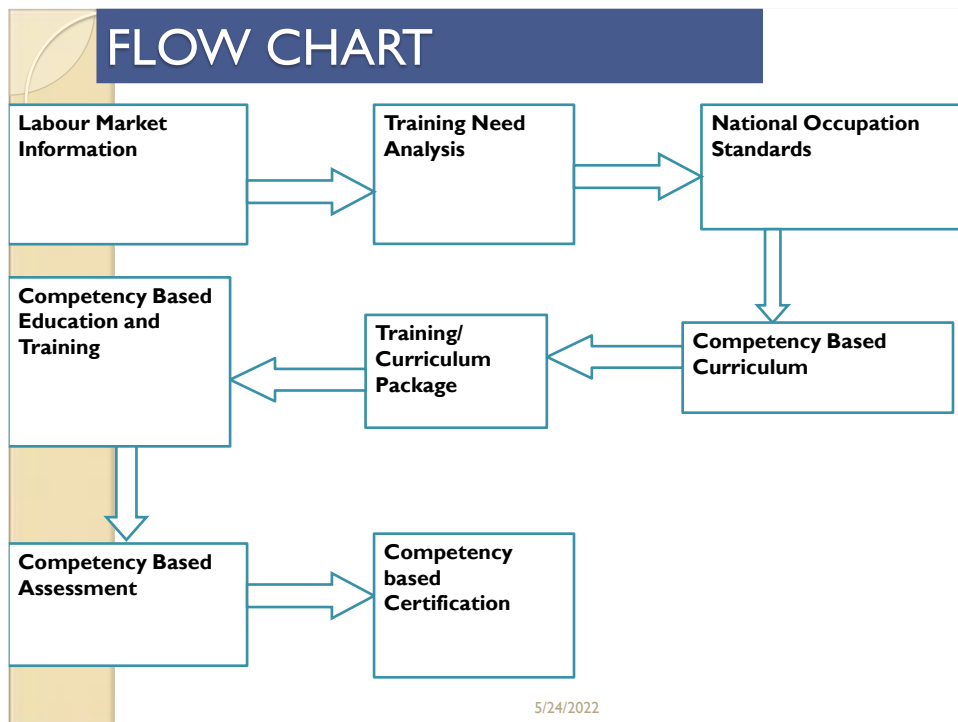


NSQF – Mobility Architecture

Level	General Education Qualifications	TVET qualifications	Proposed Certificate Awarding Bodies
10	Doctorates	NCC 8	Universities and SSC
9	Masters	NCC 7	Jointly by Universities/IGNOU and SSC
8	Post Graduate Certificates, Post Graduate Diplomas and Bachelor Degrees (Honours)	NCC 6	- Do -
7	Bachelor Degrees and Graduate Diplomas	NCC 5	- Do -
6	Graduate Certificates/Advanced Diplomas	NCC 4	- Do -
5	Diplomas	NCC 3	Jointly by Colleges / Polytechnics /Universities /IGNOU and SSC
4	Class XII (General Academic/Vocational Education)	NCC 2 (equivalent to ITI trade certificate II)	Jointly by CBSE/ State Boards /NIOS /State Open Schools and SSC
3	Class XI (General Academic/ Vocational Education)	National Competence Certificate I (NCC I) (equivalent to ITI certificate I)	- Do -
2	Class X (Pre-vocational)	NCWP-2	Jointly by Institution and SSC
1	Class IX (Pre-vocational)	National Certificate for Work Preparation I (NCWP-I)	- Do -



Confederation of Indian Industry



Vocationalization Education in J & K

Launch of VE across 132 schools in 22 districts YEAR 2015

VE implemented in Std 9th, Equivalent to Level 1

In four trades: IT&ITeS , Health Care ,Retail and Travel and Tourism

Competency based curriculum and course ware aligned to National Occupational Standards (NOS) through PSSCIVE and CBSE and Sector Skills Councils.

Vocational Coordinators and Industry Coordinators put in place

Teachers training taken up

Role of JKBoSE

Registration of the students at class IX

Curriculum and Content

Scheme of Studies

Developing Assessment Strategy for Vocational Education

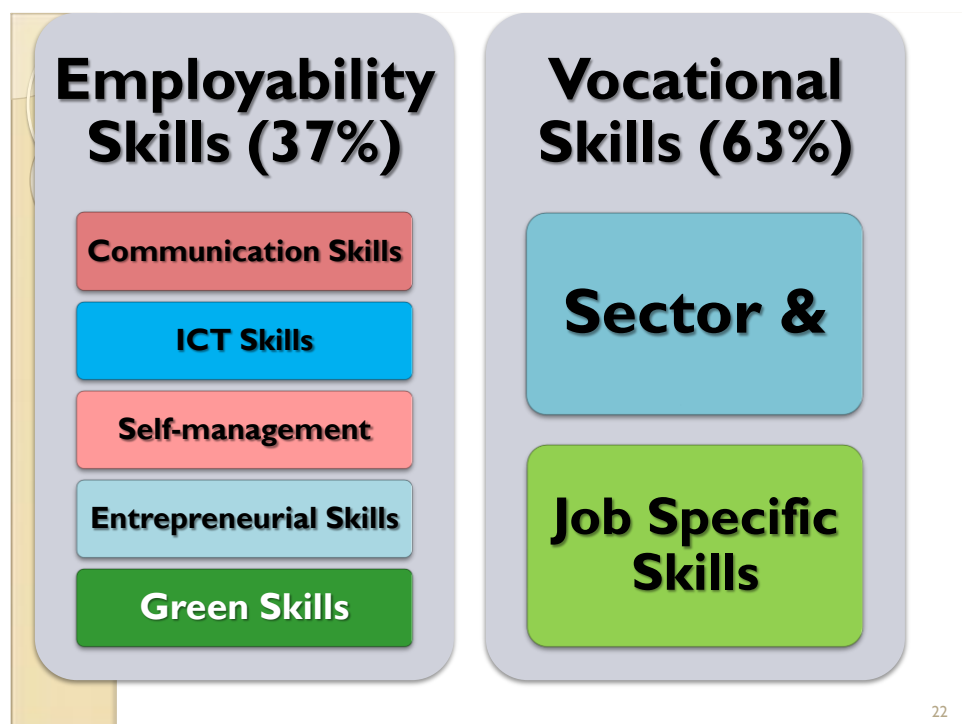
Develop a Credit framework in consultation with Universities to facilitate vertical mobility of the students

Provide Trainings

Awarding Certificates

CURRICULUM AND COURSEWARE

The vocational curriculum should be learning outcome based. include student textbook, teachers/trainers handbook, training manual, teachers/skill trainers' qualifications, assessment guidelines, multimedia packages and e-learning materials. The curriculum would be referenced to the notified National Occupation Standards/Qualification Packs developed for various job roles by the respective Sector Skill Councils.



Year-wise status of implementation in J&K

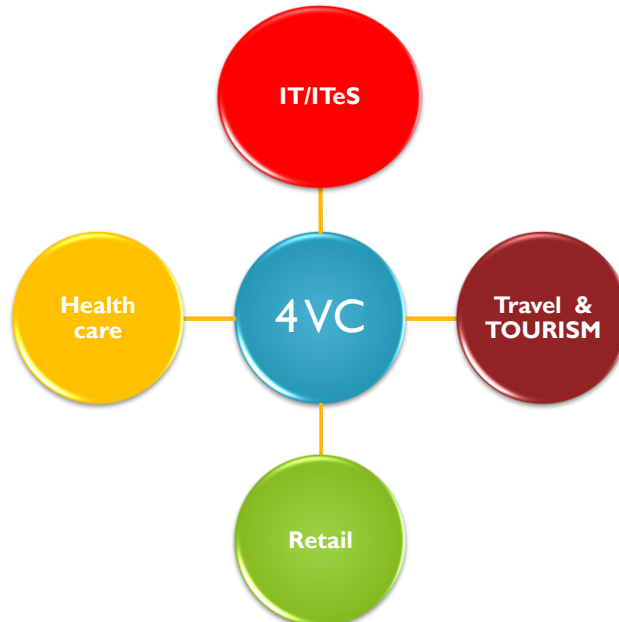
<i>Year of Approval</i>	<i>No of Schools Approved</i>	<i>Year of implementation</i>
2013-14	22	2016
2014-15	110	2016
Total for 2013-15	132	2016
2016-17	220	2017
2018-19	220	2019

2019-20	85	Under process
Total	657	

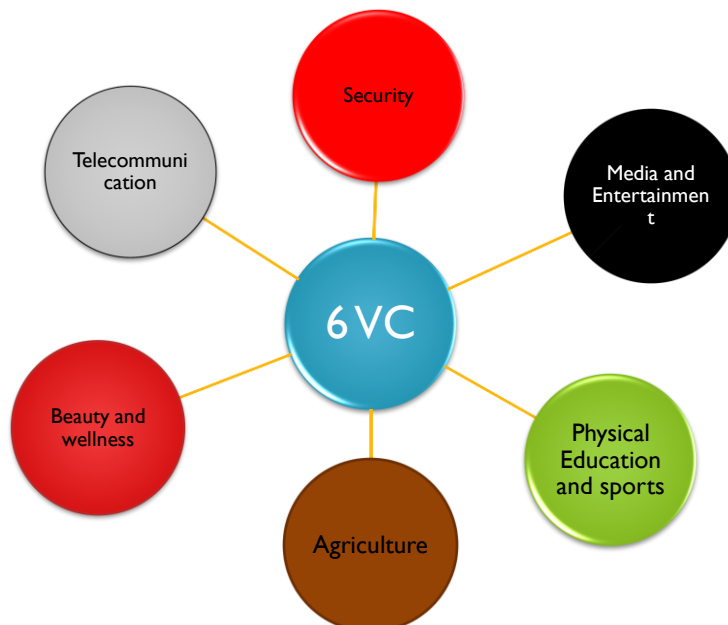
Job Role Wise Breakup

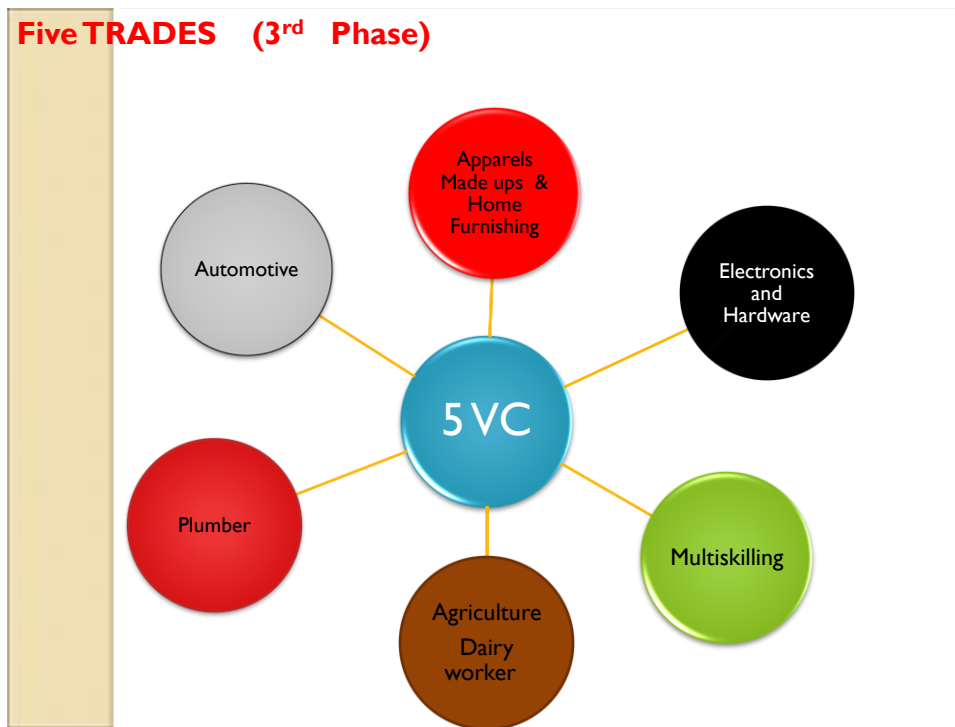
S. No	Sectors	Job Roles	Allotted Schools
1	IT/ITeS	IT Help Desk Attendant/ Domestic Data Entry Operator	366
2	Retail	Sales Associate/ Cashier	106
3	Tourism & Hospitality	Travel Consultant / F&B Service Trainee, Housekeeping attendant	136
4	Telecommunication	Field Sales Exec	10
		Optical fibre splicer	10
5	Healthcare	General Duty Assistant/Patient care Assistant	144
6	PE & Sports	Fitness Trainer / Physical Trainer/ Teacher	15
7	Private Security	Unarmed Security Guard	30
8	Beauty & Wellness	Assistant Beauty Therapist	51
9	Agriculture	Paddy Farmer	25
		Dairy Worker	45
10	Media & Entertainment	Animator	16
11	Multi Skilling	Multi Skill Foundation Course	9
12	Plumber	Plumber (General)	41
13	Apparels, Made ups & Home Furnishing	Sewing Machine Operator	44
14	Automotive	Automotive Service Technician L-3	46
15	Electronics &	Field Technician- Other Home Appliances	50

FOUR TRADES (1st Phase)



SIX TRADES (2nd Phase)





An additional subject in combination with five core Academic subjects, can also opt 7th subject as optional, Also working on computations of results of best five subjects.

Scheme of Studies

Classes XI / XII UNDER NSQF

Students can take as one of the 5th Elective subject as per scheme of studies

Curriculum Transaction

Vocational subjects to be offered at 04 levels of NSQF

Duration

<u>NSQF Level 1 (Class IX)</u>	–	<u>200 hrs</u>
<u>NSQF Level 2 (Class X)</u>	–	<u>200 hrs</u>
<u>NSQF Level 3 (Class XI)</u>	–	<u>300 hrs</u>
<u>NSQF Level 4 (Class XII)</u>	–	<u>300 hrs</u>

<i>Total</i>		<i>1000 hrs</i>
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Assessment Plan of Board

Continuous & comprehensive Evaluation

Theoretical Assessment

Practical Assessment

Sr. No.	Method of Assessment	Weightage (Max. Marks)	Evaluator
1	Written Test	Question paper will be framed for 60 marks and TR will show maximum marks 30. Minimum qualifying marks 10	Theoretical Examiner BOSE
2	Practical Test & Oral Test/ Viva	Maximum marks 50. Minimum qualifying marks 17	Certified Assessor provided by NSDC/Sector Skills Councils
3	CCE	Maximum marks 20. Minimum Qualifying Marks 07	Skill Teacher concerned

NSQF CCE Guidelines

Guidelines for Continuous & Comprehensive Evaluation (CCE)

This is school based evaluation having total marks 20 for each level.

The CCE marks should be made available by the schools to Board office as per the schedule declared in this regard.

The marks allotted are as under:-

The four components of CCE are as follows:-

*Competency Based Testing (CBT) = 30 marks
(15 for each test)*

Project Work/Student Portfolio = 20 marks

*This evaluation is in activity mode which entails learning by doing
Class-room attendance = 5 marks*

*To ensure the regularity of the students
Class room participation = 5 marks*

Examination Process Theory

Pre-phase activities:-

Issuance of Admit card of students to schools

Post-phase activity:-

Capturing of Theory and CCE marks

Examination Process Practical

Pre-phase activities:-

The data of registered students is send to NSDC & SSCs for the purpose of deputing assessors for practical assessment.

Schedule of Practical assessment is shared by NSDC after allotment of assessors subject-wise.

The schedule of practical assessment shall be shared by Board to all schools under NSQF.

Role of Principal

Principals have a very significant role to play in making NSQF successful being an institutional head and specially for selection of students and to organise guest lectures.

Setting directions for integrating NSQF in the main school activities and pursue the same, e.g. Selection of Students, Accommodating Applied Learning/Vocational Training providers/Guest lecturers hosting.

Creating awareness about NSQF among parents and students through monthly PTMs.

Formation of a Skill Development Committee

Budget utilization.

Influencing students learning such as:-

Timetable allocation

Students presence in the class rooms

Understanding the context of NSQF

Empowering staff and taking decisions

Beat-out the needs in skill lab

Their interaction with the Teachers to improve teaching and learning for the

applied.

Role of Skill Coordinator

The Skill Coordinator acts as the interface between the School and JKBOSE and plays an important role to hold industrial visits of students.

Execution and implementation of directions issued from Board/Department

To ensure the proper maintenance of network system in the laboratory.

Addressing and Resolving issues of the school regarding skills classes.

Monitoring the program and its implementation.

Ensure successful implementation and supervision of NSQF project at School level.

Check the NSQF records Maintained at school level (Financial records, Attendance record and other records maintained at school level).

Create awareness about skill education at the different platforms on any event organised at nearby place.

Support Principals and Skill teachers in building industry linkages.

Awareness of NSQF policies and guidelines.

Maintain regular communication with all key stakeholders.

To ensure timely availability of books to all the students.

To ensure VTs send weekly update, monthly report of the activities undertaken

To ensure one field visit is being conducted at school level in a quarter.

To ensure one Guest lecture is being conducted at school level in a month.

Take regular inputs from the students, parents and the relevant industry experts for improvement of the program.

Guidelines for School Principals

The school principals based on the course content should ensure to enroll 40 students in each allotted two trades.

To make provision for guest lecturers (2 lectures per class per trade and keep proper record of topic/topics on which lecture given, name of the expert and honorarium given.

Ensure 100% attendance of students in the class during industrial visits/training and guest lectures.

Visit vocational education classes occasionally so as to encourage the students and also enquire their concerns if any.

Action Taken to Run Skill Subjects

Documentation

School

- ❖ Movement Register
- ❖ Attendance Register
- ❖ Genset log book
- ❖ Accounts register
- ❖ Voucher / Bills book
- ❖ Industry Visit report
- ❖ Guest Lecture report
- ❖ Practical Training

Vocational Teacher

- ❖ Daily Dairies
- ❖ Weekly report
- ❖ Lab status weekly report
- ❖ Students Attendance
- ❖ CCE Records
- ❖ Portfolio
- ❖ Guest Lecture Report
- ❖ Industry Visit Report
- ❖ Practical Training

Skill Certificate



The certificate is framed in gold and contains the following elements:

- Top Left:** Skill India logo with the motto "कौशल भारत - कुशल भारत" (Skill India - Better India).
- Top Center:** Government of India emblem and text: "सरकारमैव जयते" (Government alone triumphs), "GOVERNMENT OF INDIA", "MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP".
- Top Right:** N-S-D-C National Skill Development Corporation logo with the tagline "Transforming the skill landscape" and website "www.nsdscindia.org".
- Center:** The word "Certificate" in a large font, followed by "This is to certify that".
- Recipient:** "Ms KAZIMA KHURSHEED D/O KHURSHEED AHMAD KHANDAY" has successfully cleared the assessment in the **Retail Sector** conforming to Level 2 course aligned to National Occupational Standards set by **Retailers Association's Skill Council of India (RASCI)**.
- Bottom Left:** RASCI logo (Retailers Association's Skill Council of India) and the signature of Rakesh Biyani, Chairman.
- Bottom Center:** Signature of Mr. Riyaz Ahmad (KAS), Secretary, JKBOSE.
- Bottom Right:** Issuance details: "Date of Issuance 20-06-2019", "Aadhaar Number xxxxxxxx3857", "Roll Number 1160212", a QR code, and the number "(253)89070467036620000379677".

Ministry of Education

*Pandit Sunderlal Sharma Central Institute of Vocational Education
(PSSCIVE): www.psscive.ac.in*

Programme Schedule

Vocational Education (Skill, Entrepreneurship Development & Employment ability):

Challenges & Opportunities in recently Introduced Vocational courses (Retail & IT)

S. No		Time	Session/Title	Expert/Resource Person
1	Day-1	10:00 AM to 10:30 AM	Interaction	
2		10:30 AM to 10:40 AM	Welcome address	
3		10:40-10:55 AM	Concept note	
4		10:55 AM -11:05 AM	Tea	
5		11:05 AM -1:15 PM	Technical Session – I Vocational Education w.r.to NEP 2020 & SARTHAQ	
6		1:15 PM-2:00PM	Break	
7		2:00PM -4:30 PM	Technical Session – II Vocational Education: An implementation Programme in r.f. To NOSs & NSQF	
8	Day-2	10:00 AM to 10:30 AM	Debriefing of Yesterdays Sessions	
9		10:30 AM to 12:00 PM#	Technical Session – III Capacity Building through Pre- vocational & Vocational Education training modules	
10		12:00-1:15 AM	Introduction to Vocational Education	

11		1:15 PM-2:00PM	Break
12		2:00PM -4:15 PM	Technical Session – IV Retail /ITeS Road Map as per Samgra Shiksha Guidelines
14	Day 3	10:00 AM to 10:30 AM	Debriefing of Yesterdays Sessions
15		10:30 AM to 12:00 PM#	Technical Session – V Retail /ITeS Hands on Experience (Apprenticeship Training) Case study Approach
16		12:00-1:15 AM	Retail /ITeS: Developing linkage in the context of Srinagar
17		1:15 PM-2:00PM	Break
18		2:00PM -4:15 PM	Technical Session – VI Retail /ITeS Hands on Experience Case study Approach
19		4:15-4:30 PM	Reportuer Report