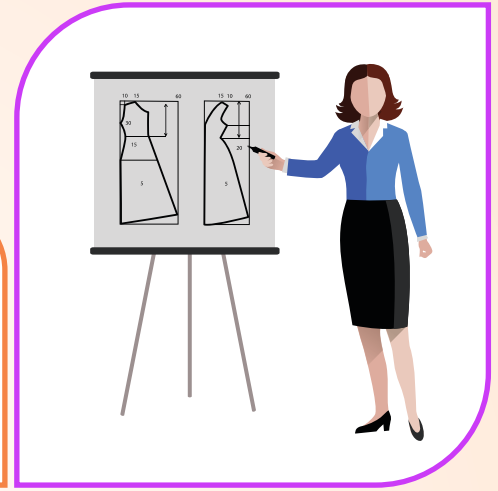


SPECIALIZED SEWING MACHINE OPERATOR

QUALIFICATION PACK: Ref.Id : AMH/Q2301

SECTOR

Apparel, Made
Ups and Home
Furnishing



CLASS

XI and XII

विद्यया ऽ मृतमश्नुते



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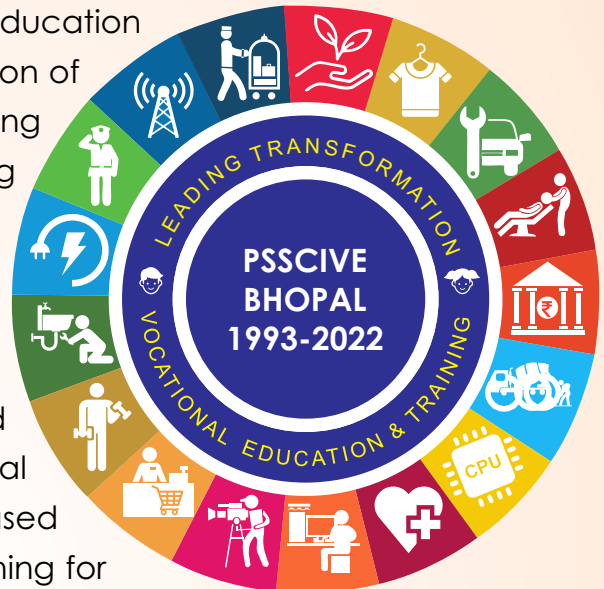
PSS CENTRAL INSTITUTE OF VOCATION EDUCATION

(A constituent Unit of National Council of Educational Research and Training, under Ministry of Education, Government of India), Shyamla Hills, Bhopal – 462002 (M.P.)

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VOCATIONAL EDUCATION

Vocational Education and Training (VET) in India is organised through the formal, informal and non-formal sector. VET delivery occurs in different forms, according to different target groups and the skill needs of the learners. Amongst the various Ministries, the Ministry of Skill Development and Entrepreneurship (MOSDE) and the Ministry of Education (MOE), Government of India are responsible for the majority of the skill development schemes and programmes. VET provisions made through the schools, colleges and universities come under the purview of the Department of School Education and Literacy and Department of Higher Education of the MoE. The vocational education and training provided through Polytechnics, Industrial Training Institutes, Jan Shikshan Sansthan, National Institute for Entrepreneurship and Small Business Development comes under MOSDE. Schools provide an environment to the learners for systematic acquisition of knowledge, skills and attitude required to meet the varied aspirational needs and educational goals. The school-based vocational education programmes provide training for entry-level qualifications in various occupations.



Vocationalisation of education, which refers to the inclusion of those practical subjects or courses, which shall generate among the students some basic knowledge, skills and disposition that prepare them to think of becoming skilled workers or entrepreneurs is being implemented under the Samagra Shiksha - an integrated scheme of school education. It is designed to provide diverse educational opportunities and career pathways and improve learning outcomes in occupational skills.

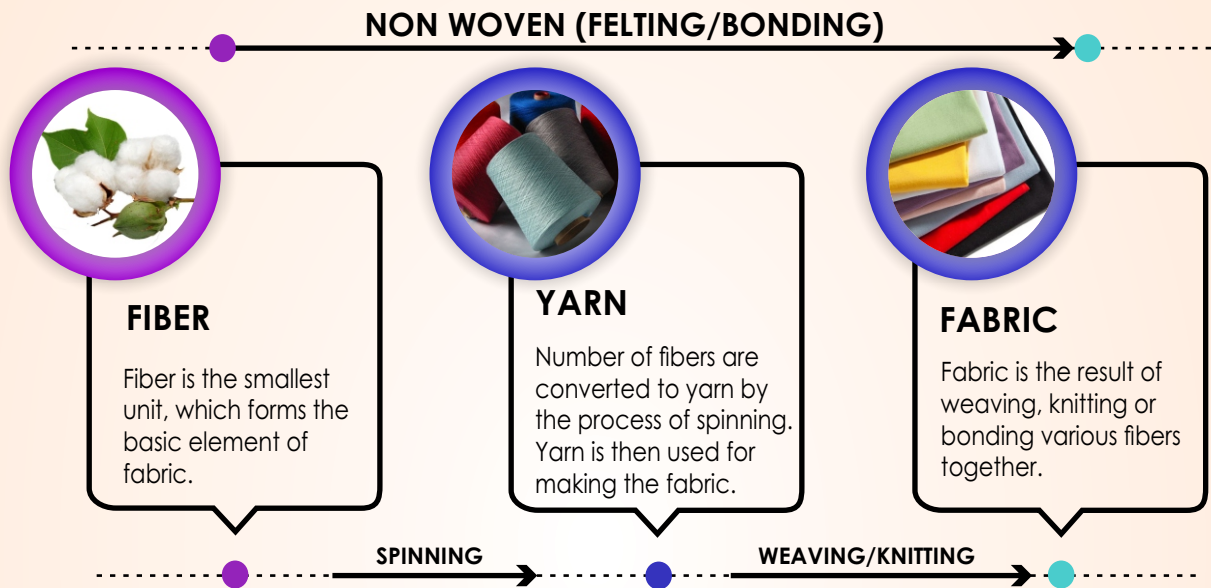
Vocational Education and Training (VET) system is recognised to prepare and develop skilled manpower to meet the growing demands of labour market. VET focuses on specific job roles and imparts practical knowledge and skills, which allow individuals to engage in specific occupational activities. It is not only vital for providing employment opportunities to individuals but also helps in enhancing productivity in industries.

The vocational subjects were introduced under the revised scheme of vocationalisation of secondary and higher secondary education in 2012, with one job roles across Grades 9 to 12 (4-year pattern). The scheme was subsumed in Samagra Shiksha in 2018, along with Sara Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA).

There has been increased emphasis on Vocational Education in the National Education Policy 2020 (NEP-2020). The NEP-2020 envisages re-imagining of Vocational Education to provide a due social status and for developing a system for integration of Vocational Education with General Education.

ABOUT APPAREL, MADE-UPS AND HOME FURNISHING (AMHF) SECTOR

Apparel, Made-ups and Home Furnishing sector is amongst the fastest growing sectors in our country. It covers a great number of activities from the transformation of raw materials into fibres, yarns and fabrics to produce end products. This sector includes activities related to designing, pattern making, cutting, stitching, finishing and embellishment of apparel, made-ups and home furnishing items. It also includes assessing their quality, merchandising and export.



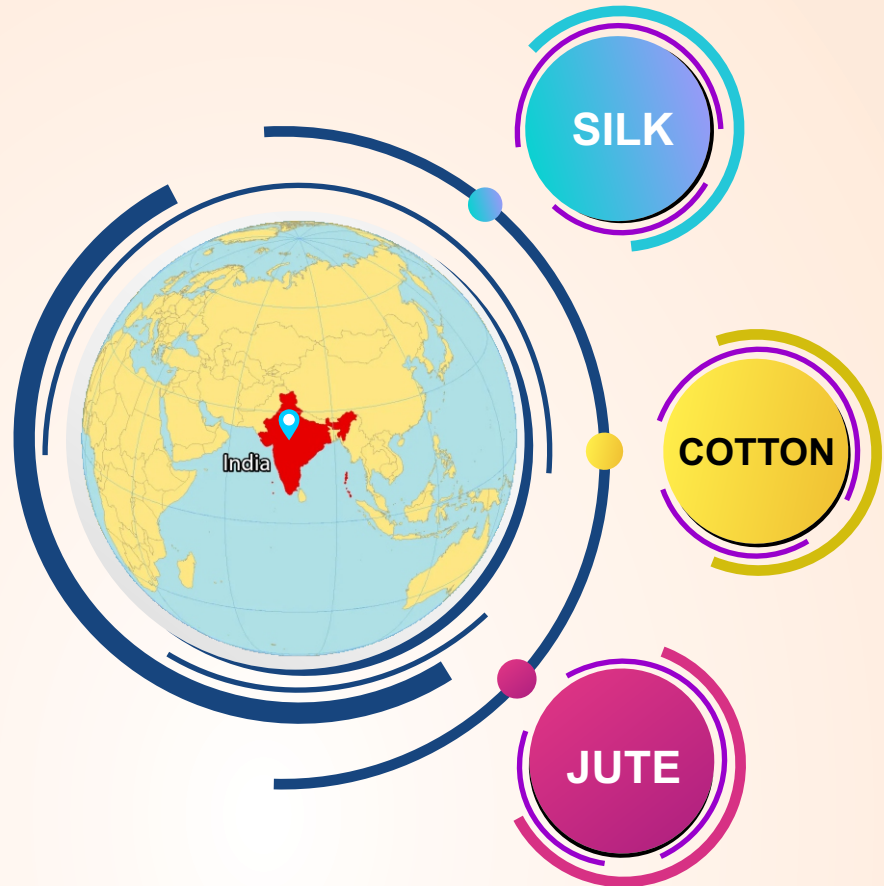
Fabric is transformed into various end products as per requirement. Textile/Apparel product development passes through the stages of planning and execution with quality control at each stages.



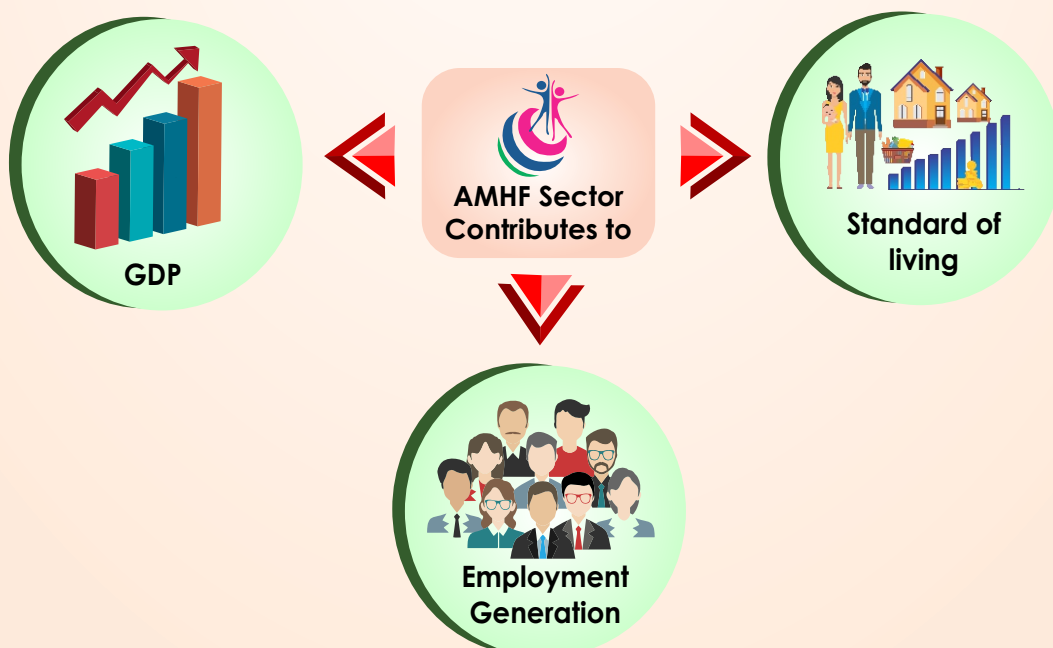
CONTRIBUTION OF AMHF SECTOR IN ECONOMY

India not only possesses a rich heritage but also holds a strong position on the world map showcasing the richness of legacy in agriculture and textile industry.

One of the Major Exporter



The above figure reflects the contribution of the AMHF sector to India's growth. AMHF has not only contributed to the Gross Domestic Product (GDP) but also boosts economy by being a vital part of the exports. This sector has been vital in the employment generation in the country seeding the growth of youth and improvement in standard of living.



COMPONENTS OF APPAREL INDUSTRY

AMHF sector can be divided into two major segments:

1. **Fiber to Fabric (Textile Industry)**
2. **Fabric to Product (Apparel Industry)**

The textile industry in the AMHF sector includes the conversion of fiber into yarn or fabric and yarn to fabric. The fabric is further enhanced using dyeing, printing, embroidery, embellishment & finishing technique.

The apparel industry consist of usage of this fabric to create various product like garments, home furnishings & accessories.

Other industries associated with AMHF sector are:



Apparel industry is very diverse in nature performing variety of processes. It starts from a design idea and ends when the finished garment reaches the customer. These processes are carried out by different departments of an apparel industry. Every department is responsible for a specific function and together all the departments aim at providing good quality product within reasonable cost and time. Various departments are as follows-

- Merchandising Department
- Store Department
- Cutting Department
- Sewing Department
- Washing Department
- Finishing and packing Department
- Quality Assurance Department
- Maintenance Department
- Finance & Accounts Department
- Admin Department



ABOUT THE JOB ROLES

In the Apperal, Made-Ups and Home Furnishing sector, there are various job roles which one can opt as their profession and enhance their skills. This sector focuses on providing many job opportunities to the budding candidates. It includes all the jobs related to apparel industry like pattern master, self-employed tailor, hand embroiderer, etc. and self-owned small businesses like embroidery unit, boutique, design studios, etc. Job roles identified by National Skills Qualification Framework (NSQF) under Apperal, Made-Ups and Home Furnishing Sector as follows:

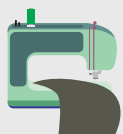
01	Fabric Checker
02	In-Line Checker
03	Layerman
04	Measurement Checker
05	Pressman
06	Sewing Machine Operator
07	Embroidery Machine Operator (Zigzag Machine)
08	Export Assistant
09	Framer - Computerized Embroidery Machine
10	Garment Cutter (CAM)
11	Hand Embroiderer
12	Quality Assessor
13	Sampling Tailor
14	Advance Pattern Maker (CAD/CAM)
15	Fashion Designer
16	QC Executive - Sewing Line
17	Merchandiser
18	Machine Maintenance Mechanic (Sewing Machine)
19	Export Executive
20	Export Manager
21	Sampling Coordinator
22	Industrial Engineer (IE) Executive
23	Production Supervisor Sewing
24	Factory Compliance Auditor
25	Specialized Sewing Machine Operator
26	Assistant Designer - Home Furnishing
27	Assistant Designer - Madeups
28	Assistant Fashion Designer
29	Boutique Manager
30	Cutting Supervisor
31	Fabric Cutter - (Apparel made Ups and Home Furnishing)
32	Finisher
33	Hand Embroiderer (Addawala)
34	Line Supervisor Stitching
35	Merchandiser - Made-Ups & Home Furnishing
36	Online Sample Designer
37	Packer
38	Pattern Master
39	Processing Supervisor (Dyeing & Printing)
40	Record Keeper
41	Self Employed Tailor
42	Sewing Machine Operator (Knits)
43	Sourcing Manager
44	Store Keeper
45	Washing Machine Operator

One of the important job role of this sector is Specialised Sewing Machine Operator. A Specialized Sewing Machine Operator is a worker who stitches fabric with electronic high speed motorized machines (umbrella), specific specialized machines used for specific stitches. He/She is in charge for operating the specialized sewing machine to stitch different kinds of stitches of fabric/garments in the apparel industry.



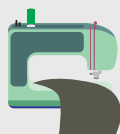
ROLES AND RESPONSIBILITIES OF A SPECIALISED SEWING MACHINE OPERATOR

A Specialized Sewing Machine Operator is a worker who sews fabric with a specialized sewing machine.

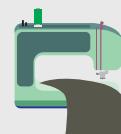


To operate the specialized sewing machine for sewing different kinds of stitches on fabric/garments in the apparel industry.

01



02
Handling specialized machines and their parts.



Work on different types of specialized machines according to design.

03

CLASS XI

The job role is being offered in class 11th and 12th. The content of class 11th student's textbook covers the following:

A Specialized Sewing Machine Operator should have the knowledge and skills to operate the specialized sewing machine. They should know the operation of their machines, faults, difficulties as working of all machines are different. A specialized sewing machine operator should have a good eyesight, eye co-ordination, motor skills, distance vision and colour vision. To make students aware about the entire process the units will cover-

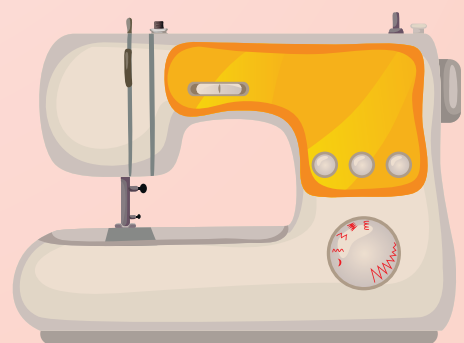
UNIT-1 Production Technology



The fashion industry is evolving and demand of readymade garments is increasing. The need of mass production systems becomes the essential way to meet the market demand. Garment production system is a way to convert a fabric into a garment in a manufacturing system. The commonly used production systems are discussed in this unit with their advantages and disadvantages. In this unit students will learn the workflow system in the apparel industry.

UNIT-2 Introduction to Industrial Sewing Machines

The objective of this unit is to gain understanding of the specialized sewing machines, its operating procedure and importance in Apparel, Made-Ups and Home furnishing sector. The awareness about existing and new machineries will add more skills for the operator for their advancement in their career. Student will get knowledge of different types of threads, needles and their compatibility in this unit.



UNIT-3 Machines for Seam Finishes

The objective of this unit is to equip the students with the knowledge of seam finishing and machines used for seam finishing. This unit deals with lock stitch and over lock stitch machine. After completing this unit, students will be able to utilize the seam finishing machines appropriately at required stages of manufacturing.



UNIT-4 Machines for Ornamental Stitches



Machine embroidery is done with a sewing or embroidery machine to create design on fabric. It is used in uniform adornment, product branding, and corporate advertising. It is also utilized in the fashion industry and garment manufacturing to embellish garments and apparel along with this zigzag machine is also used in industries for special purposes. Both these types of machines are discussed in this unit in detail along with their uses and applications.

UNIT-5 Machines for Attachments

Button machine is highly technical specialized machine in garment industry to sew button of various sizes on garments. They are also used for making buttonholes in the garment and for finishing the edges. These machines are specialized machines and require good working skills to operate them. This unit explains about these machines, their parts, threading steps and operating procedure in detail.



UNIT-6 Personal Hygiene and Cleaning and Maintenance at Workplace



Health and safety measures are important to be followed as health and safety of the employees in a manufacturing unit affects the production line which may lead to growth of the firm. In this unit importance of health and safety measures are explained in detail.

CLASS XII

The content of class 12th student's textbook covers the following:

UNIT 1

Introduction to Garment Pre-Production Processes

Specification sheet and Techpacks are an integral part of the pre-production process of a garment. Specification sheet is the document where in details of the measurement, design and construction is given. Techpack is a set of individual sheet and comprises of detailed information of wash and care labels, prints etc. All these aspects are discussed in this unit.

UNIT 2

Feed Off Arm and Bartack Machines

Feed off arm & Bartack machines are valuable and important machines of garment industry. These machines are helpful for fast working & quality production. In this unit, the parts and operating process of both these machines are explained in detail.

UNIT 3

Flat Lock Machine, Blind Stitch Machine, Finishing Machines and Other Equipment

The flat lock is the interlock machine and used for knit wear garments. The blind stitch machine is used for hemming and facing attaching. It helps in giving a neat and finished look at the edge of the garment. This unit to make the students aware of their usage in garment manufacturing industries.

UNIT 4

Organizational Health, Safety and Security at Workplace

Health, safety and security is the main concern of any organization Garment manufacturing process can be hazardous like any other industrial process. A healthy and safe environment is necessary for employee's well-being. This unit covers a brief description of all these factors.

UNIT 5

Quality Control in Stitching Process

Quality adds to the total satisfaction of a customer. In technical term, garment without any defect with proper fit, fabric, design at acceptable price is a quality garment. This unit deals with the types of defects, their remedies and the factors affecting the quality of garment.

Growth

After completing the course for the job role Sewing Machine Operator, the growth can be in the areas of:

Wage Employment

- 1 Special Sewing Machine Operator in Export/ Buying/Design House as embroiderer
- 2 Special Sewing Machine Operator in Export/ Buying/Design House as button hole maker
- 3 Special Sewing Machine Operator in Export/ Buying/Design House as knitting expert
- 4 Machine repairing expert in Apparel Industry



Self Employment

- 1 Freelance Machine Operator for knitting
- 2 Freelance machine embroiderer
- 3 Freelance Special Machine Operator for Button stitching/ edge finishing
- 4 Business Man having his own business of specialized tailoring and sewing machines



On Job Training

- Government and non-government skilled training centers.
- Government and non-government export/buying/design Houses.
- Sewing / Tailoring/ Sampling department in government and non-government industry of apparel sector.

ABOUT PSSCIVE

PSS Central Institute of Vocational Education, Bhopal

The Pandit Sundarlal Sharma Central Institute of Vocational Education (PSSCIVE) is an apex research and development organization in the field of vocational education. It is a constituent unit of the National Council of Educational Research and Training (NCERT), established in 1993 by the Ministry of Education [Formerly Ministry of Human Resource Development (MHRD)], Government of India. It is also a UNEVOC (International Project on Technical and Vocational Education) Network Centre in India. The Institute has a picturesque 35-acre campus with Departments created for different disciplines, viz. Agriculture & Animal Husbandry, Business & Commerce, Engineering & Technology, Health & Paramedical Sciences, Home Science & Hospitality Management and Humanities, Science, Education & Research.

The Institute offers quality-training programmes in vocational pedagogy and a wide array of disciplines for the key functionaries in vocational education and vocational teachers. The highly qualified team of the Institute possesses excellent professional skills and experience required to impart training for classroom teaching and training.

The Institute has traversed the path of rapid development in vocational education, responding positively to the changing needs of the industry and at times initiating significant changes in the field of vocational education. The evolution of the Institute in the last twenty-five years has witnessed various challenges, but these have served as opportunities to explore new horizons and work on possibilities of reorienting strategies for meeting the skill needs of the people at the local and global canvas.



विद्यया ऽ मृतमश्नुते



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