MAHATHMA GANDHI UNIVERSITY

B.SC (CBCSS) FAMILY AND COMMMODULEY SCIENCE
(Home Science)
VI-Semester
Choice based Paper (Elective)

HS6BI.$_1$OU - INTRODUCTION TO INDUSTRIAL APPAREL MANUFACTURING TECHNIQUES

(Theory 36 Hours; Practical 36 Hours= 72 Hours)
Credits – 3 (Theory 2 & Practical 1)

Objectives

- To understand the need and importance of apparel manufacturing techniques in industries.

2) To study the processes involved in apparel manufacturing techniques in industries.
3) To understand the importance of bulk production and reduction in production waste
5) To study various techniques to maximize production with minimum investment

Module I: - **Pattern Engineering**- Introduction **(6 hrs)**

Pattern alteration-methods and need

Grading - Principles of Grading – Types of grading- Pattern layouts-open-closed-marshedhen.

Module II: - **Marker and other preparations for cutting bulk in apparel industry (**6 **hrs)**

Planning, Drawing and Reproduction of the Marker-Marker planning-Methods of marker planning-

Module III: - Spreading and cutting techniques in apparel industry (10hrs)

Definition, Function and Scope of cutting Production. Types of Spreads, Spreading Equipments and Tools-Spreading method Analysis-
types of materials using for apparel-stretch-nonstretch-animal skins-
Nature of fabric packages in cutting.-stretch and non stretch fabrics

Module IV: - Garment assembly techniques in apparel industry (10 hrs)

Industrial sewing machines: types, uses and working-straight stitch-button hole-button sewing- over locking.
Stitches**:** Definition, stitch classes, stitch parameters, factors to be considered in the selection of stitches.
Seams**:** Definition, Types of seams, seam quality, seam performance, factors to be considered in the selection of seam, seam finishes, seam defects
Sewing Thread: Types, construction, sewing thread quality, selection of sewing thread.

Sewing machine needles: Types, uses, selection
Other methods of assembling the garment-fusing-welding etc

Module V: - Garment finishing and packing in apparel industry (4 hrs)

Garmentfinishing-accessories-decoration-Ironing-pressing-folding-packing-equipents and method

References:

- Harold Carr and Barbara latham, The Technology of Clothing Manufacture, Om Book Service, 2006
2. Laing R.M., and Webster J, Stitches & Seams, The Textile Institute, India, 1998.
3. Gerry Cooklin, Master Patterns and Grading for Men's Outsize, Blackwell Scientific Publications 1992.
4. Gillian Holman - Pattern Cutting Made Easy, Blackwell Scientific Publications 1997. ISBN: 0- 7134 – 8093- 9.
5. Natalie Bray, More Dress Pattern Designing, Blackwell Scientific Publications 1986 ISBN: 0-632-1883-

HS6BI.$_1$OU (P) – INTRODUCTION TO INDUSTRIAL APPAREL MANUFACTURING TECHNIQUES

Credit 1 **36 hrs**

Module -1. Pattern alteration and Grading- grading of pattern in different sizes using different grading techniques for industrial use (6 hrs)

Module -II. Final pattern, Marker making and spreading and Pattern lay (Any one garment) (6hrs)

Module- III. Study of Cutting Techniques and machineries used in garment Industries (Round knife-straight knife-band knife-notcher-driller) . (6 hrs)

Module-IV. Garment assembly-study on machines, stitches and seams for different Purposes {Lock stitch-(manual, industrial) over locking (stitches-type 301, 504)seams, class-2 welt seam-lapped fell seam(class-6-edge neatening. (6 hrs)

Module- V. Garment finishing (surface embellishments(appliqué work-sequence-beading), ironing, folding and packing of shirt and trouser/salwar/churidar with top/sari/T-shirt/baba suits or any 2 garments in garment industries. (6 hours)

Module VI - Visit to a garment unit. (6 hrs)

MAHATMA GANDHI UNIVERSITY
B.Sc. (CBCSS) FAMILY AND COMMUNITY SCIENCE PROGRAMME (HOME SCIENCE)
VI - Semester

Model Question Paper

HS6BI.$_1$OU - INTRODUCTION TO INDUSTRIAL APPAREL MANUFACTURING TECHNIQUES (Elective)

Time: 3 Hours **Weightage :25**

Section-A
Answer all questions

I) Choose the correct answer

- Which among the following provides functional protection and/or aesthetic appeal.
  a)Packaging b) cutting c) pattern making d) ironing
- The individual part of a garment that is shaped by hard paper is :
  - Sample b) pattern c) grading d) marker
- The process by which the fabrics can cut as per marker dimension with the help of knife:
  - Finishing b) designing c) Cutting d) none

4. Trim edge machine is known as:
   a)Bar tack b) Over lock c) button sewer d) lock stitch

II. Fill up the following:

5. The naps of alternating piles face towards the opposite ends of the ply is --------.
6. Slack spread is due to ---------- in spreading
7. Design one way spread is used on--------- fabrics.
8. Static electricity is formed due to ----------.

III. State whether True or False:

9.Removal of projecting fibres reduces the hairiness of the spun thread.

10. The surface characteristics of the spun thread ensures a good "lock' of the thread in the

stitch configuration.

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- The denier system is used for multi filament sewing threads
- The feed- dog pushes the bottom layer forward.

IV. Match the following:

• Edge finishing	-	Sewing thread	
• Button	-	Ply	
• Nap eitherway	-	Button stitching	
• Yarn	-	Overlock	(4x1=4)

Part B

Short answer type questions, weight 1 each.

- What is Scissor press?
- Advantages of die cutter?
- What is the use of a drill machine?
- What are welded seams?
- What is mono cord?
- What are the marking points to be indicated on pattern?
- What is nap one way?
- List any 4 items needed for drafting. (5×1=5)

Part C

*Short essay type questions, weight **2** each*

*Answer any **4** each within **one** page*

- What are the functions of a puffer?
- What faults to be inspected during the process of ironing and pressing ?
- Describe industrial pressing of a trouser?
- What are the Principles of Pattern Making?
- Describe the draping method.
- What are the working principles of Straight Knife as Cutting Accessory.?

(4x2=8)

Part D

*Essay type questions, weight 4 **each**.*

*Answer any **two** each within **three** pages*

- Explain the requirements of fusing and properties of fused laminate?
- Explain two stitches and two seams used in garment industry.
- What is Die cutting? Explain,

(2x4=8)