Unit - 3

Fabric Structure

Chapter - 7:
Introduction to Weave Structures

7.1 FABRIC STRUCTURE

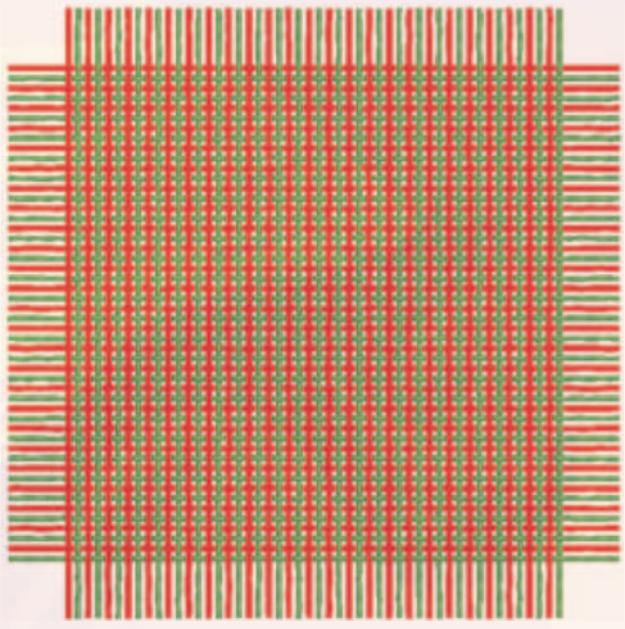

Figure: 7.1

Fabric refers to any material made through weaving, knitting, crocheting, braiding or bonding which may be used in production of any end use product such as garments. When a material is constructed using any textile fibre into 2 dimensional or 3 dimensional structures which may be drape-able, spreadable and pliable, it is called a **Fabric (Fig 7.1)**. It can be wearable, useable as any functional product in an interior or exterior, as home furnishing, or may be used as an aesthetic piece of art. A fabric is a flexible woven or non woven material consisting of natural or artificial fibers known as thread or yarn. A Yarn is produced by spinning raw fibers of cotton, silk, wool, flax, or other materials to produce continuous long strands.

A Textile fabric is formed by weaving, knitting, crocheting, knotting, or pressing fibres together known as felted fabrics. The term fabric and cloth is used in textile trades such as tailoring and dressmaking as synonyms for textile. A Cloth may be used synonymously with fabric but often refers to a finished piece of product used for a specific purpose e.g., any fashionable garment, bed spread, bed cover, table cloth, curtains, durries and rugs **(Image-2)** etc.

Plain weave is extensively used in making the rugs and other hand woven Dhurry structure, one such example of a rug structure is given above

7.2 INTRODUCTION TO WEAVES

The weaves are represented graphically on a graph paper as explained in the earlier units. The type of weave used in a fabric depends upon the desired factors such textures, luster, strength, pattern, colours, look, feel, effects and cost of the production, before any recommendation of the weaves is done.

There are three basic weaves, they are:

- Plain weave,
- Twill weave, and
- Sateen and stain weave

All other weaves are the permutations and combinations of these weaves only irrespective of whether they are produced on handloom, power loom, on a simple treadle loom, on a multi treadle frame loom, on a loom using dobby or on a loom attached with a Jacquard wherein an elaborate design with the application of one or multiple weaves are employed (Image-3).

An example of simple yet elaborate design woven using the Jacquard mechanism

Summary:

This chapter introduces the student to the fabric structures. The type of weave used in a fabric depends upon the desired factors such texture, luster, strength, pattern, colour, look, feel, effects and cost of the production, before any recommendation of the weaves is done. This chapter in brief gave an idea to the students about the various fabric structures that they are going to study in the forthcoming chapters. The three basic structures are Plain, Twill and Sateen Weave. All other weaves are the usually a permutations and combinations of these weaves.