

Unit-2

* Honeycomb

→ Ordinary Honeycomb
→ Brighton Honeycomb

I Ordinary Honeycomb -

column $\leftarrow 8 \times 8 \rightarrow$ row

	x	x	x	x	x		(x)
(x)		x	x	x		(x)	
	(x)		x		(x)		
		(x)		(x)			
			(x)				
		(x)		(x)			
	(x)		x		(x)		
(x)		x	x	x		(x)	
1	2	3	4	3	2	1	5

Design

	x	x	x	(x)
(x)		x	x	
	(x)		x	
		(x)		
			(x)	
		(x)		
	(x)		x	
(x)		x	x	

Peg Plan

				x	
			x		x
		x			x
	x				
x					

Draft

• Characteristics (Ordinary Honeycomb)

- It will have a cell like appearance with rigid hollow lines.
- Single line crossing single line or double line will cross double line
- More warp & weft floats
- Moisture absorbant will be more due to floats
- It is a reversible fabric having similar effect on both sides.

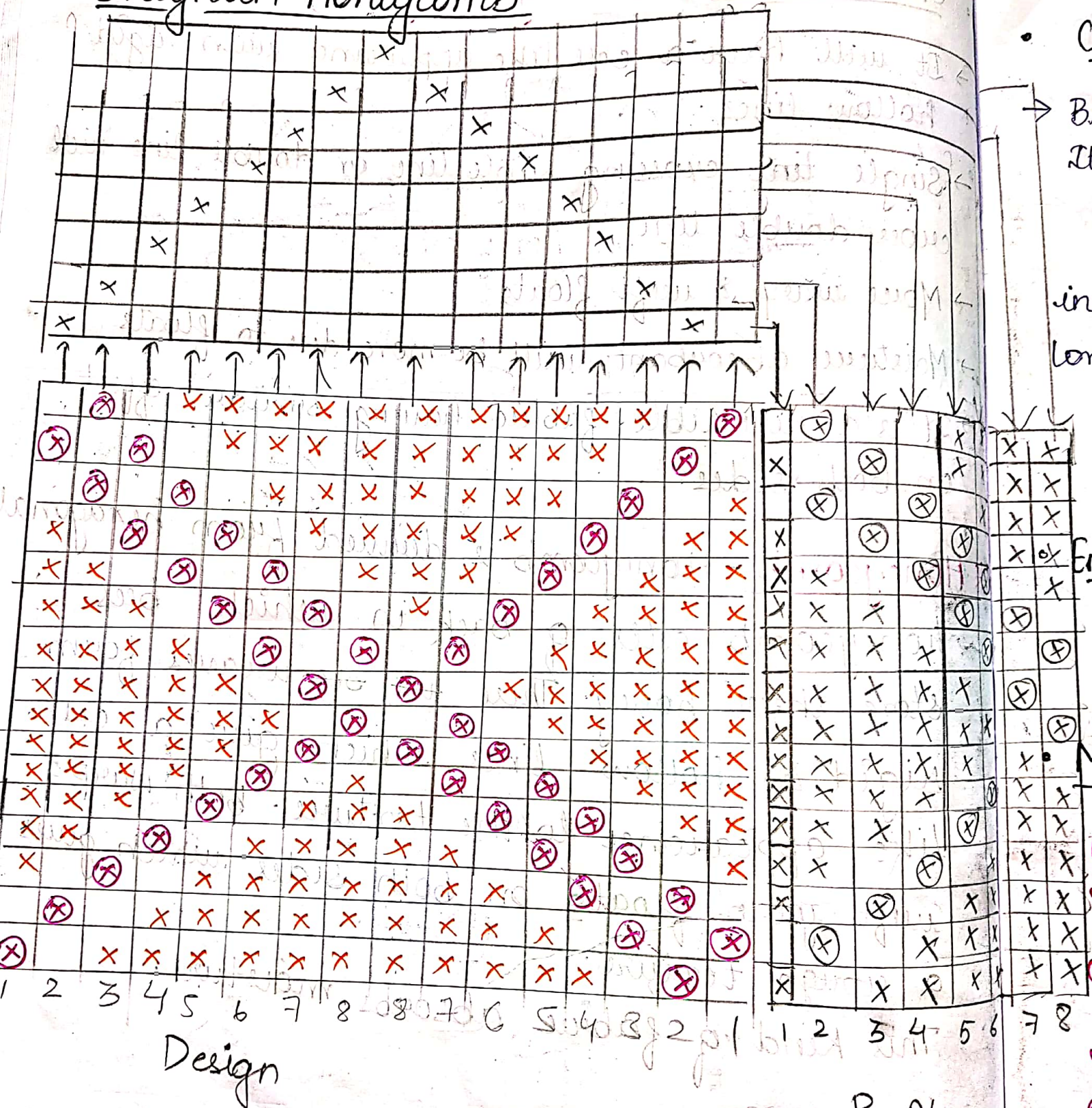
↑ Definition

* Honeycomb - Honeycomb is derived from hexagonal honeycomb cells of back in which bees store their honey. These ~~are~~ ~~bee~~ weaves form rigid & hollow lines which give a cell like appearance to the texture. Both warp & weft yarn floats on both sides which gives a rough texture.

This kind of fabric absorbs moisture.

P.T.O

Brighten Honeycomb Draft



• Characteristics [Brighton Honey Comb]

→ Brighton honeycomb weave is a diagonal base. It is made by insertion of single diagonal line & then double diagonal to cross it.

Suitable motifs can be inserted inside the space of diagonal lines. The length of longest float in the motif should not exceed

$$\left[\frac{N}{2} - 1 \right] \quad N = \text{size of repeat}$$

Enduces - ~~Since honeycomb weave have more thread~~
This weave is suitable for towels, bed covers & quilt.

• Mock-leno Weave -

Mock-leno is also known as imitation leno.

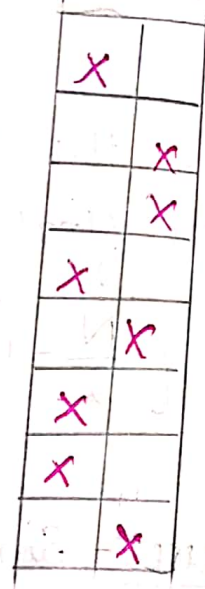
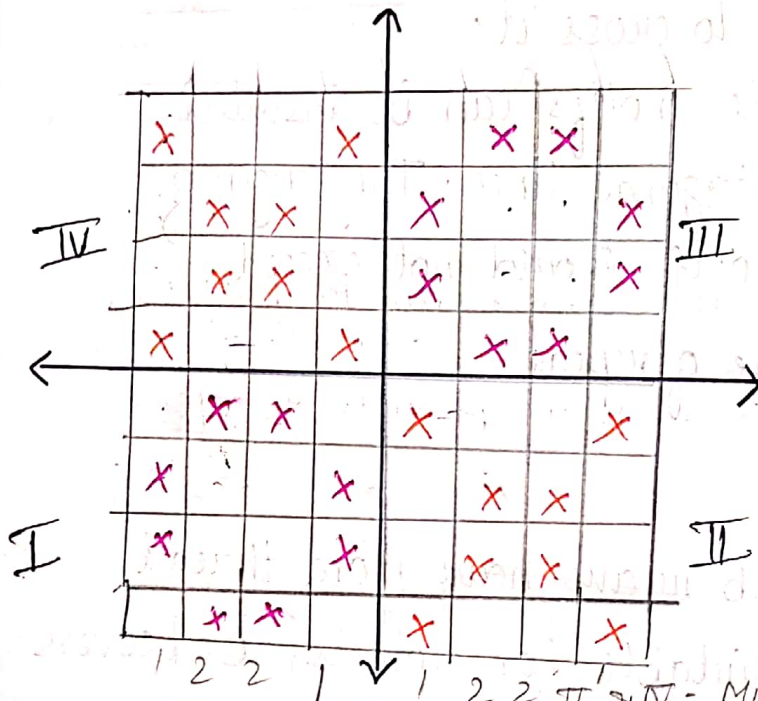
These weaves are generally produced in combination with the plain, twill, satin or some other weaves. It produces a striped effect.

* There are two types of Mock-leno:-

① Perforated effect

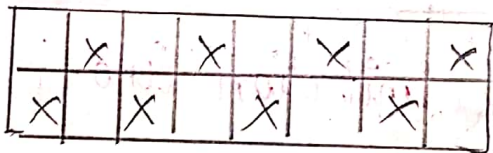
② Distorted effect.

Mock-lino - Perforated effect



Design II & IV - Mirror
III & I - Geometric

Reg Plan



Draft

• Perforated effect - Perforated effect are constructed by reversing the small unit of weave. These weaves are (I, II, III, IV) tends to oppose each other.

• Distorted Effect-

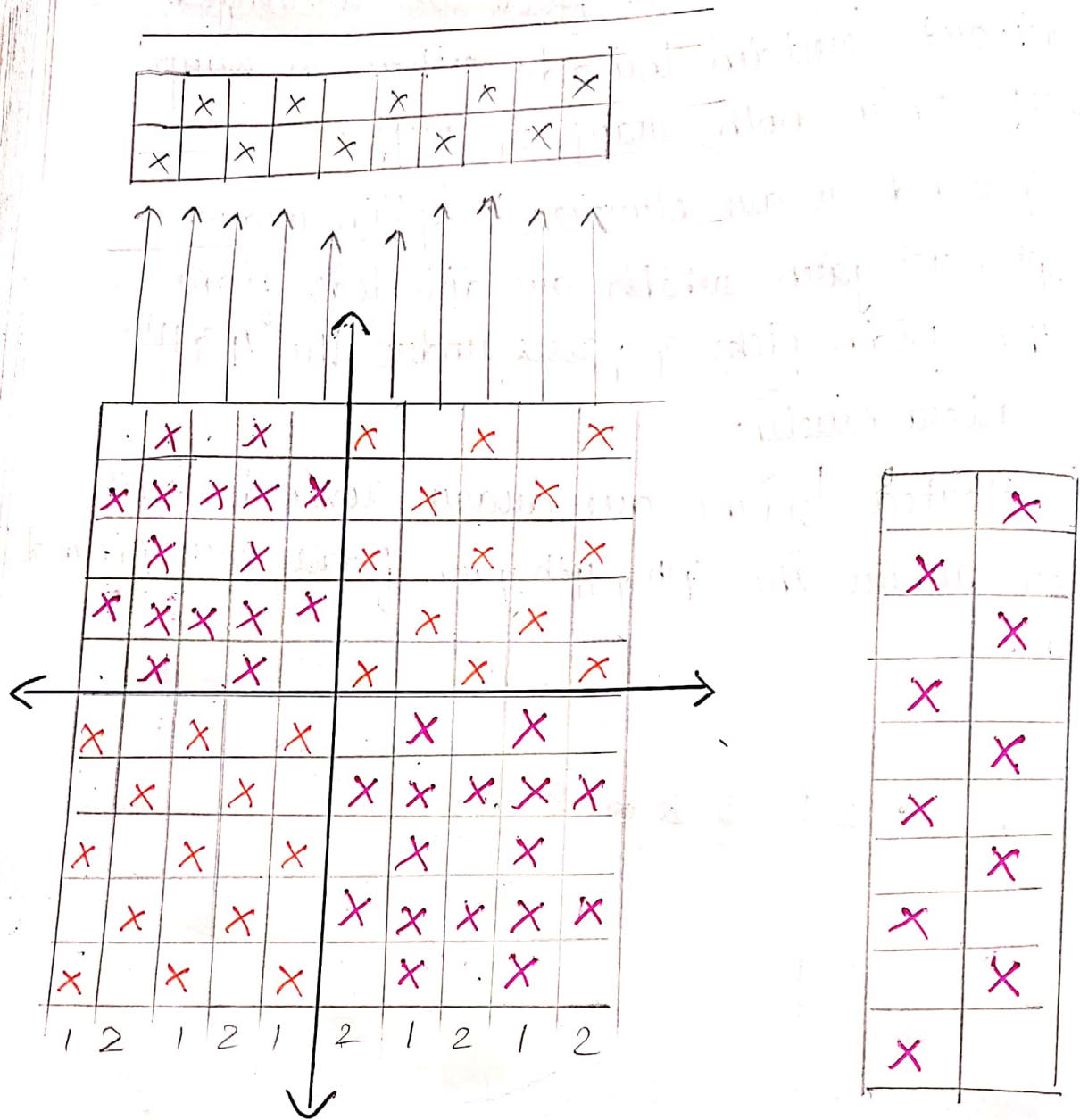
- The weaves of distorted effect are arranged to distort certain threads either in warp or weft or in both warp or weft.
- The Ground weave structure is plain weave.
- The 4th & 11th yarn which are distorted floats over the plain picks & passes under the 4 & 11th picks alternatively.
- The distorted yarns are drawn towards each other where the 4th & 11th yarn floats over ground yarn.

Diagram illustrating the distorted effect in a 10x10 grid. The grid is labeled with 'D' on the left and right sides, indicating the distorted effect. The grid shows the arrangement of threads (X) and the positions of the 4th and 11th yarns (marked with red X's) which are distorted floats.

10	X		X		X		X		X
9			X	X	X	X	X	X	
8	X		X		X		X		X
7		X		X		X		X	
6	X		X		X		X		X
5			X		X		X		X
4	X		X		X		X		X
3		X		X		X		X	
2	X		X		X		X		X
1		X		X		X		X	
	1	2	3	4	5	6	7	8	9

2 & 9 has distorted effect

Huck-a-Back weave -



Structure

- Huck-a back weave are twill fabric.
- They are generally associated with honeycomb weave.
- They are constructed alternatively by combining floats with a plain weave.

→ Huck-a-back weaves are suitable for producing thick & heavy structure

→ One of the well known heavier variety of this weave is "Geucians"

→ The design of huck-back weave permits stripes & checks effects to be brought out in the fabrics

• Characteristics

→ Design is divided into 4 equal parts

→ 2 parts are filled with plain weave.
& remaining 2 weaves are filled long float motifs.

→ Long float motifs gives moisture absorbancy.

• Enduses

Huck-a-back weaves are used to manufacture towels for bathrooms. (linen & cotton)

& also linen towels are used ^{as} for glass cloth.

Type of weave	Step Numbers	
5 end	2	14 ends 2, 3, 4, 5, 6, 3, 5
7 end	2, 3	15 ends 2, 1, 4, 7
8 end	3	
9 end	2, 4	
10 end	3	
11 end	2, 3, 4, 5	
12 end	5	

Crepe Weave

- Sateen & Twill weave - combination

(X) → Sateen

X → Twill

	X	X			(X)		X
		(X)		X		X	X
	X		X	X			(X)
X	X			(X)		X	
	(X)		X		X	X	
X		X	X			(X)	
X			(X)		X		
(X)	X		X	X			X

① ② ③ ④ ⑤ ⑥ ⑦ ⑧



• Characteristics Structure

Crepe weave is also known as crepe or oatmeal.

This is due to pebbly or rough surface.

This is commonly used with combination of elementary weave to produce the jacquard weave for brocade fabric.

Characteristics

This cloth is covered by minute spots, has highly irregular surface, puckered appearance.

High twist yarns are used with controlled shrinkage.

Based on the texture crepe weaves are constructed in light, medium & heavy construction.

The count of warp yarn is used finer than weft yarn.