

2<sup>nd</sup> Test - 2017-18

Subject - SFD-III TD-304

max Marks - 15

~~Solve~~ All Questions are compulsory.

Q.1

What is figuring with extra threads. Explain with examples. (5)

or

What is dobby & jacquard shedding?  
Explain <sup>function of</sup> any one with diagram.

Q.2

What is Double cloth? Construct a weave of D.C. with draft & peg plan. or graph paper. (10)

or

What is Backed cloth? Explain with a weave of B.C. with draft & peg plan. or graph paper.

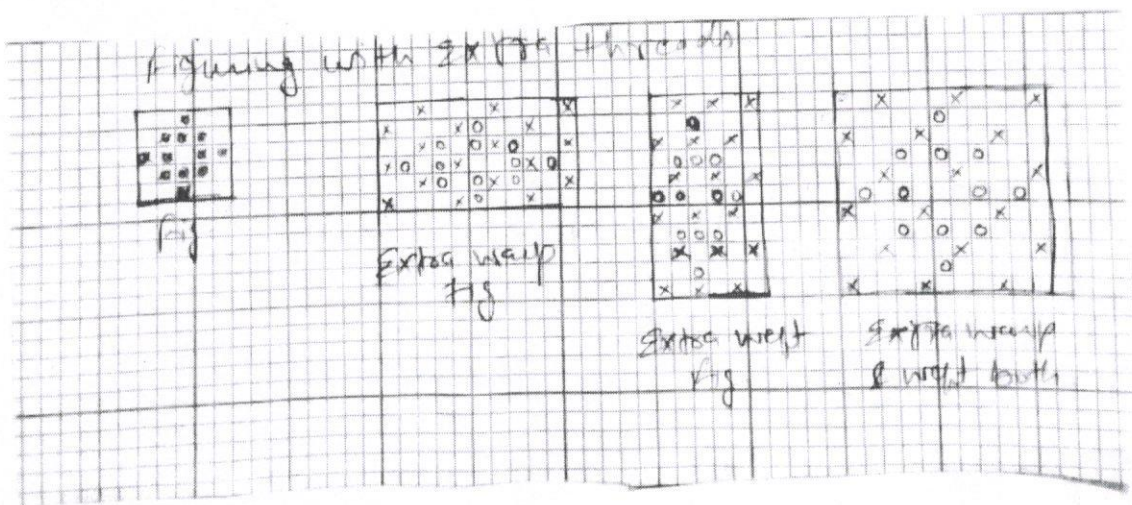
Ans 1) Figuring with extra threads

A class of weave in which extra threads are used in addition to ground threads. The extra threads are used normally used as figuring threads for decorative designs

Types of Extra threaded figuring :-

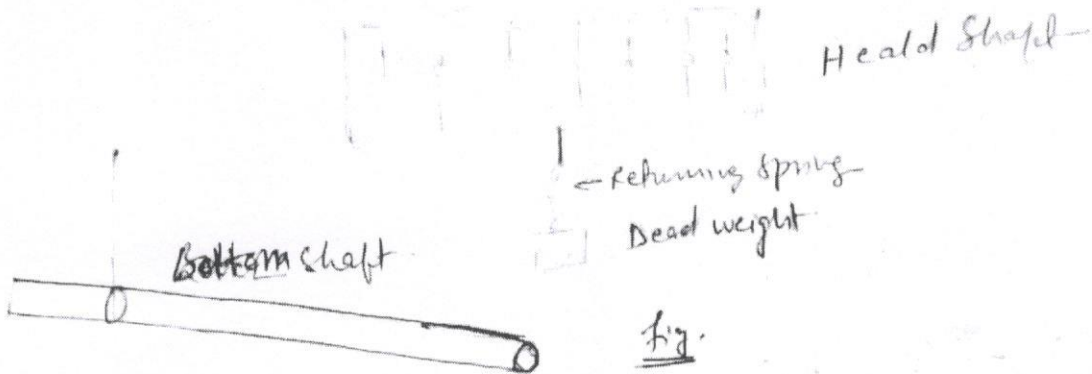
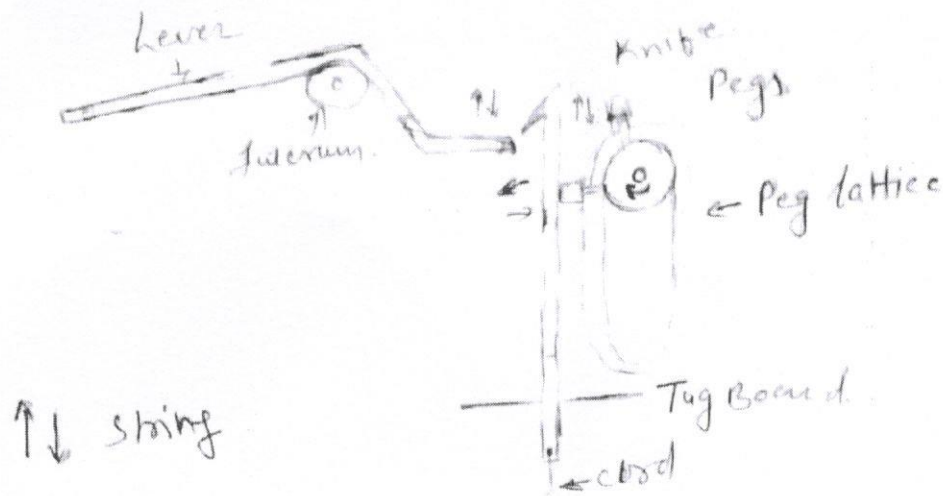
- (i) Extra warp figuring → when figure is produced by introducing extra thread in warp, where two series of warp used.
- (ii) Extra weft figuring :- when figure is produced by introducing extra thread in weft, where two series of weft used.
- (iii) Extra warp & weft both :- when figure is produced by introducing extra threads in both warp & weft, where two series of each used.

Examples shown on graph paper.



• Ans 9

## Dobby Shedding



Dobby Shedding → This mechanism is used when a weave requires a very high number of heald frames to form a shed. Dobby mechanism are classified as negative, positive and rotary dobbie.

→ In this mechanism lowering of the heald frame is happens here (shown in fig) by jace lever. when the pattern cylinder doesn't find peg on pattern drum then the jace lever brings the heald frame in downward direction

→ the heald frames operated by the jace lever.  
→ the lever is connected with the Knives. The Knives and heald frames are connected with cord.

→ when the peg of peg lattice come to the contact of Knives, it pulls the Knife towards lever. lever lifts the Knives and heald frames moves upward to form a shed.

Ans 1

### Jacquard Shedding

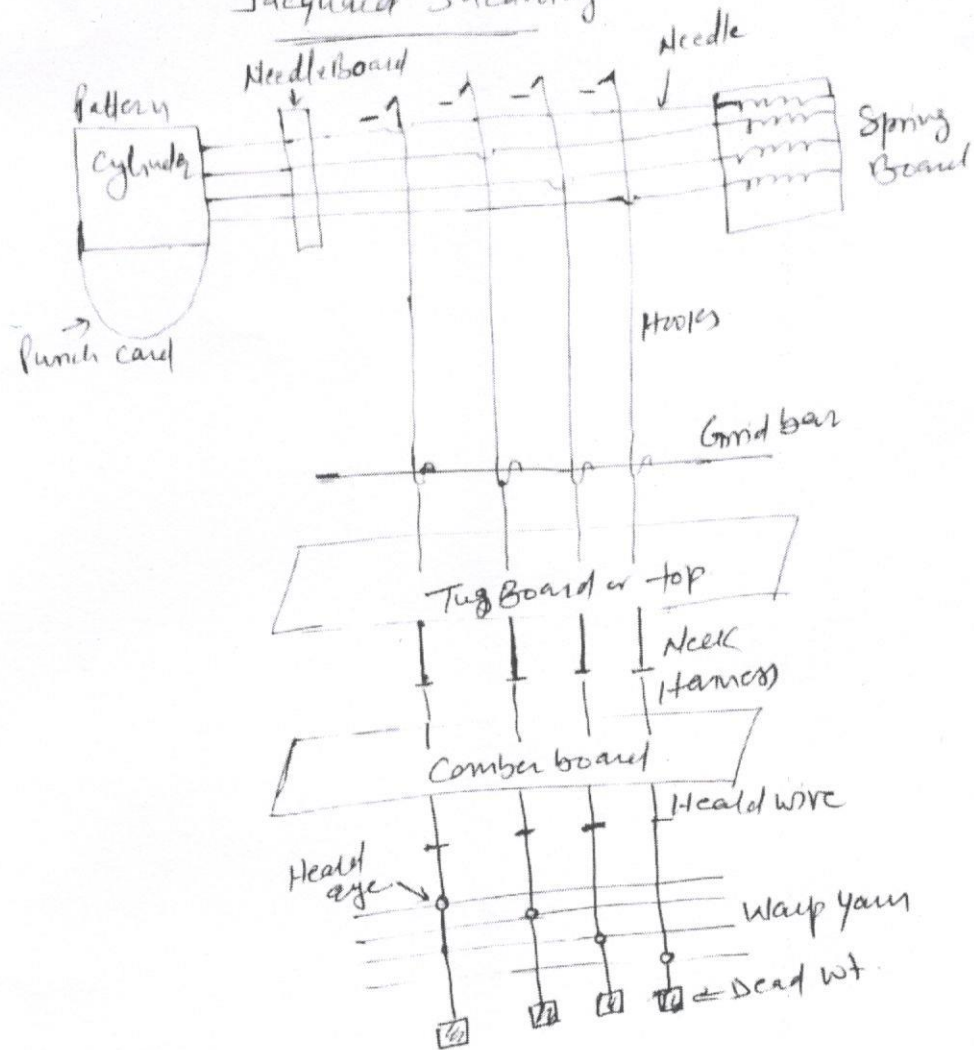


Fig.

- The jacquard loom is a mechanical loom that produces elaborate designs in an intricate weave.
- It was invented by Joseph jacquard.
- Jacquard Machine may be divided into three main parts :-
  - (i) Jacquard head/Engine → Knives, hooks, needles, springs, card cylinder and cutters Pattern card
  - (ii) Harness → Neck-cords, harness cords, mails and weights (springs)
  - (iii) The Mechanism → that links the engine to the weaving loom.
- There is a Pattern punch card mounted on cylinder, Spring loaded needles are connected, which displaces the hooks. When the needles finds pattern punch on card, the needle drops in the punched hole, due to displacement of needle the hook moves towards knife and knife drags the hook and neck cord, which moves upward to form a shed.

Ans 2

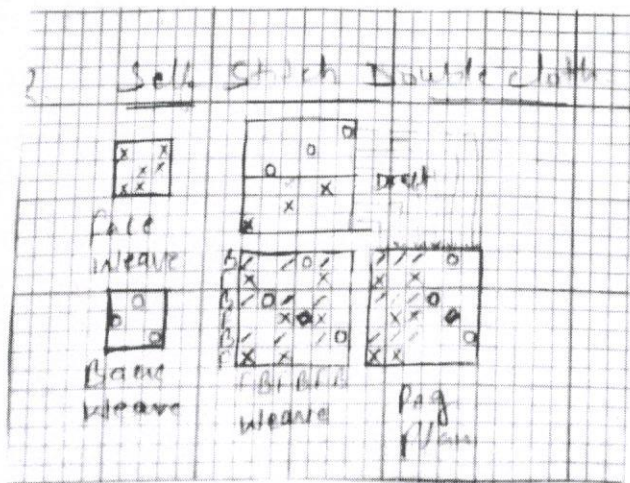
Double cloth :- Double cloth is those fabrics which consists of two layers of threads that are woven one above the other and stitched together.

Classification of Double cloth :-

- (i) Self Stitched Double cloth
- (ii) Centre Stitch Double cloth
  - (a) Centre Wlap Stitch
  - (b) Centre Wleft Stitch
- (iii) Interchanging Double cloth
  - (a) Thread Interchanging Double cloth
  - (b) Layer Interchanging Double cloth

Construction of Self Stitch Double cloth → (Step by step) (Shown on graph)

- (i) Construct a Face weave - 2/1 twill
- (ii) Construct a Back weave - 1/2 twill
- (iii) Size of weave - 6x6
- (iv) Mark threads as face & back
- (v) Fill face weave in face threads
- (vi) Fill back weave in back threads
- (v) Make all face warp up over back weft
- (vi) Stitch Mark.



Mark Shows :-  
 X → Face Weave  
 O → Back Weave  
 / → All face warp up over back weft  
 ◇ → Stitch Mark.

Ans. 2

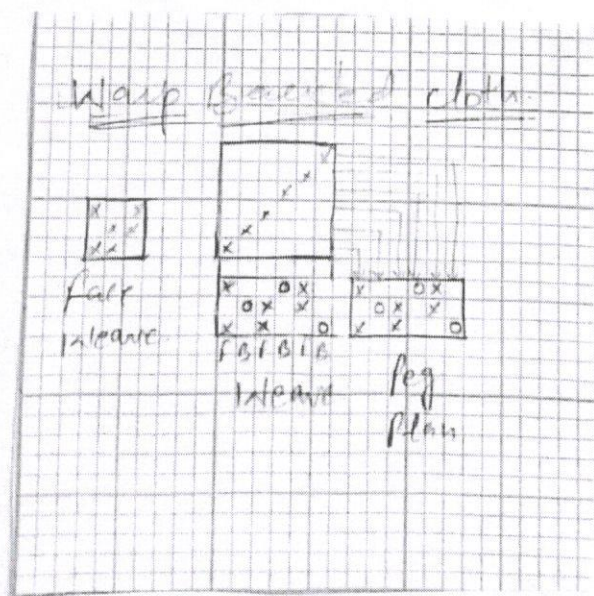
Backed cloth :->

Backed fabrics are characterised by an additional series either warp or weft threads employed for the purpose of increasing their strength, weight, bulk, and warmth or any one of these properties without affecting their surface appearance. It employs a face and back weave alternatively on the two sides of the cloth.

Construction of a backed weave on graph paper (step by step) :->

- (i) Face weave - 2/1 twill
- (ii) Back weave - 1/2 twill
- (iii) Size of weave - 6x3 (warp backed)
- (iv) Mark threads as face & back
- (v) Fill face weave in face threads.
- (vi) Fill back weave in back threads.

Ans



Mark Shows is  
 X -> Face weave  
 O -> Back weave