INDIAN INSTITUTE OF HANDLOOM TECHNOLOGY

BARGARH/GUWAHATI/FULIA/JODHPUR/SALEM/VARANASI/CHAMPA/KANNUR/KHTI GADAG/SPKM VENKATAGIRI

DIPLOMA IN HANDLOOM AND TEXTILE TECHNOLOGY

SEMESTER EXAMINATION APRIL/MAY-2017 (2011 REGULATION)

Time : 3 Hours **Max. Marks : 80**

V SEMESTER **5.2 FABRIC STRUCRURE & ANALYSIS- IV**

PART - A

(Answer all the questions within two to three sentences) **2 x 10=20 Marks**

1. Name the special heald used for leno weaving.
2. Name the fabric produced by using leno weaving.
3. What are the two series of warp used in leno weaving?
4. Mention the denting order/method for leno weaving
5. What is the suitable count of graph paper for weaving 100 EPI & PPI?
6. What is the special jacquard system used in Damask weaving ?
7. How many series of warp and weft used to produce Patent satin?
8. Name the series of warp and weft used to produce Pique fabric.
9. Write the formula for calculating Crimp percentage
10. Write any two factors involved in costing of fabric

PART - B

(4+8) x 5= 60 Marks

11 A) Draw the different doup healds with neat sketch **(4)**

B) Explain the different shed formation in leno weaving with neat sketch **(8)**

(OR)

C) Draw the pointed draft in leno weaving. **(4)**

D) Explain the method of producing crossover effect in leno weaving. **(8)**

12 A) Explain the functions of Easer motion in leno weaving. **(4)**

B) Explain the method of producing check effect in leno weaving **(8)**

(OR)

C) Explain the type's leno fabrics. **(4)**

D) Explain the differences between Gauze and Leno **(8)**

13 A) Draw the different counts of point paper with figure **(4)**

B) Construct the figured weft backed structure on 40 ends and picks by using 5 thread twill for both side binding **(8)**

(OR)

C) Write the differences between warp and weft backed fabrics. **(4)**

D) Explain the method of producing Damask by using healds and jacquard combination. **(8)**

PTO

14 A) Describe the production of Patent satin. (4)

B) Explain the method of producing Patent satin with working comber board method. (8)

(OR)

C) Write the differences between loose and fast back pique structures (4)

D) Construct the structure of figured pique on 36 x 36 by using 12 x 9 guide design. (8)

15 Analyse the given sample and give the following details -

A) EPI &PPI (4)

B) Weave (8)

(OR)

C) Crimp percentage of warp and weft (4)

D) Estimate the weight per square metre of the given sample (8)

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DIPLOMA IN HANDLOOM & TEXTILE TECHNOLOGY

V SEMESTER EXAMINATION- NOVEMBER / DECEMBER 2016

5.2 FABRIC STRUCTURE & ANALYSIS-IV (2011-Regulation)

Time : 3 Hours Max.Marks:80

PART-A

I. Answer all the Questions [10x2=20]

i Draw Straight draft of leno weaving.
ii Draw Pointed draft of leno weaving.
iii Indicate heald lifting plan for crossed shed in leno weaving.
iv What are the different types of shed formed in leno weaving.
v Draw 12 X 8 count of graph paper.
vi If the cloth density is (EPI & PPI) 48 X 36 which count of graph paper is suitable.
vii Define the term "Decked mail eye".
viii Write the order of ends and picks used in Patent satin.
ix Find EPI & PPI of the sample supplied to you.
x End use of the sample supplied to you.

PART-B

Answer the following questions in detail

II. a. Give a brief note on Gauze weaving. [4]

b. Draw the formation of crossed shed in leno weaving and explain. [8]

(OR)

c. Give a brief note on leno weaving. [4]

d. With suitable diagram, explain in brief different types of sheds formed in leno weaving. [8]

III. a. Draw the draft to produce stripe fabric using plain & leno. [4]

b. From the above draft draw the interlacing diagram,design with the shedding order of -2 open,2 cross,2 open,2 cross (8picks). [8]

(OR)

c. Draw the draft to produce stripe fabric using twill and leno. [4]

d. From the above draft draw the interlacing diagram,design with the shedding order of -2 open,2 cross,2 open,2 cross (8picks). [8]

IV. a. Draw the diagram of pressure harness set with 2 & 3 decked mail & 5 special heald shaft. [4]

b. Taking 36 ends X 36 picks indicate the structure of warp backed cloth using 6 thread twill for binding on both side. [8]

(OR)

c. Differentiate "Warp backed cloth and Weft backed cloth". [4]

d. Taking 40 ends X 40 picks indicate the structure of weft backed cloth using 8 thread twill for binding on both side. [8]

V. a. Differentiate fast & loose back pique structures. [4]

b. Using 12 X 9 guide graph figure, mark the complete structure of patent satin on 36 X 36 . [8]

(OR)

c. Explain " patent satin" with suitable examples. [4]

d. Using 12 X 9 guide graph, mark the complete structure of figured pique on 36 X 36 . [8]

VI. Analyse the sample supplied to you and extract the followings.

a. Weave. [8]

b. Draft and peg plan of the weave. [4]

GUW (5)

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DIPLOMA IN HANDLOOM AND TEXTILE TECHNOLOGY

FIFTH SEMESTER (2011 - REGULATION) EXAMINATION –NOV/DEC-2016

5.2-FABRIC STRUCTURE AND ANALYSIS-IV

Time: 3 Hours **Max.Marks: 80**

PART – A

I. Answer the following questions in ONE or TWO sentences : **(2X10=20)**

i) Name the ends used in leno weaving.
ii) Draw straight draft of leno weaving.
iii) Indicate heald lifting plan for ordinary and open shed in leno weaving.
iv) Define "Bottom doup" in leno weaving.
v) Draw 6 x 8 count of graph paper.
vi) If the figured cloth density is (EPI & PPI) 48 x 60 which count of graph paper is suitable?
vii) Name ends and picks used in patent satin designing.
viii) Write the order of ends and picks used in pique structures.
ix) Find ends/inch and picks/inch of the sample supplied to you.
x) Find material used in warp & weft of then sample supplied to you.

PART B

II. Answer all the questions in detail

A) Draw the formation of crossed shed in leno weaving. **(4)**
B) Explain the working of Easer motion in leno weaving. **(8)**

(OR)

C) With suitable diagram, explain in brief different types of doup system used in leno weaving. **(4)**
D) With suitable diagram, explain plain & ordinary sheds formed in leno weaving. **(8)**

III. A) Draw the draft to produce leno & plain stripe fabric. **(4)**
B) Draw thread interlacing diagram of leno structure in straight draft with 4 standard and 4 crossing ends. **(8)**

(OR)

C) Draw the draft to produce leno & twill stripe fabric. **(4)**
D) Draw thread interlacing diagram of leno and plain stripe fabric along with drafting. **(8)**

IV. A) Explain the factors that influencing the selection of proper count of graph paper. **(4)**
B) Take 40 x 20 indicate the structure of warp backed cloth or take 20 x 40 indicate weft backed cloth using 5 thread twill on both side. **(8)**

(OR)

C) Draw the diagram of pressure harness set with 2 & 3 decked mail eyes alternately & 5 special heald shaft. **(4)**
D) Using 16 x 16 guide graph, indicate the complete structure of Damask fabric in 48 X 48, woven with the pressure harness set 3 decked mail eyes and 8 heald shaft. **(8)**

V. A) Mark the weaves used for figure and ground portion of figured patent satin. **(4)**
B) Using 16 x 12 guide graph, mark the complete structure of patent satin on 48 x 48. **(8)**

(OR)

C) Classify figured pique structures. **(4)**
D) Using 16 x 12 guide graph, mark the complete structure of figured pique on 48 x 48. **(8)**

VI. Analyze the sample supplied to you and derive the followings.
A) Weave. **(4)**
B) Draft and peg plan of the derived weave. **(8)**

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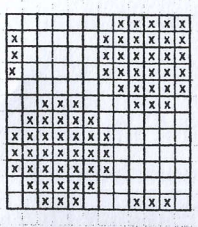
DIPLOMA IN HANDLOOM & TEXTILE TECHNOLOGY
FIFTH SEMESTER (2014 - REGULATION) – NOV/DEC.2016.

Time: 3 Hours. **5.2 – FABRIC STRUCTURE - IV** **Max.Marks:80**

I. (2 X 10 = 20)

i. What is Anchoring of spot effect in Extra warp?
ii. Define Chitzing in Extra weft.
iii. Differentiate between Reversible and Non-Reversible Tapestries.
iv. Write the Weft series used in combined warp and weft Tapestries.
v. Draw the diagram of one block of 8 X 5 graph count.
vi. What is the appropriate count of graph paper used for developing graph to weave a figured fabric of 80 EPI and 60 PPI using 240 hooks jacquard?
vii. What are the two different jacquard setups used for weaving figured double cloth?
viii. Calculate the size of punching graph for 400 Hooks jacquard set with sectional draft to produce figured double cloth of 600 picks.
ix. Sketch the interlacing diagram of Gauze weave using 4 ends and 4 picks.
x. Name the two mechanisms used in weaving leno fabrics.

II. 

a. Arrange the given 12 X 12 design in 1 : 1 Extra warp style in 24 X 12 (6)
b. Indicate its draft and lifting plan (4 + 2)

(OR)

c. Arrange the given 12 X 12 design in 1 : 1 Extra weft style in12 X 24 (6)
b. Indicate its draft and lifting plan (4 + 2)

III. a. Indicate the two weaves of Patent Satin. (4)
b. Indicating the three weaves draw the weft interlacing diagram of Three picks weft Tapestry. (8)

(OR)

c. Distinguish between Traditional Tapestry and Modern Tapestry. (4)
d. Indicating any three weaves, draw the weft interlacing diagram of Four picks weft Tapestry. (8)

IV. a. What are the four stages and its importance involved in developing jacquard graph for punching? (4)
b. Take 48 x 48 graph, divide it with 4 segments. Show these four stages using a small motif. (8)

(OR)

c. Differentiate between warp backed and weft backed cloth structures. (4)
d. Taking a guide graph in 24 X 24, develop warp backed structure in 48 X 24. (8)

V. a. Sketch the drafting diagram of Straight tie - Sectional draft jacquard setup. (4)
b. Indicate the structure of figured two colour Double cloth taking 48 X 48. (8)

(OR)

c. Sketch the drafting diagram of Sectional tie - Sectional draft jacquard setup. (4)
d. Indicate the structure of figured four colour Double cloth taking 40 X 40. (8)

VI. a. Draw the neat diagram showing the formation of Crossed shed in Leno weaving . (4)
b. Sketch the drafting and interlacing diagram to produce stripe effect of Leno with plain weave. (8)

(OR)

c. Draw the neat diagram showing the formation of Open shed in Leno weaving. (4)
d. Sketch the drafting and interlacing diagram of Leno weave to produce Cord effect. (8)

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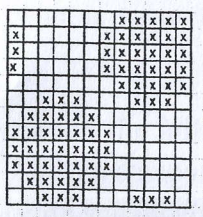
DIPLOMA IN HANDLOOM & TEXTILE TECHNOLOGY
FIFTH SEMESTER (2014 - REGULATION) – NOV/DEC.2016.

Time: 3 Hours. **5.2 – FABRIC STRUCTURE - IV** **Max.Marks:80**

I. (2 X 10 = 20)

i. What is Anchoring of spot effect in Extra warp?
ii. Define Chitzing in Extra weft.
iii. Differentiate between Reversible and Non-Reversible Tapestries.
iv. Write the Weft series used in combined warp and weft Tapestries.
v. Draw the diagram of one block of 8 X 5 graph count.
vi. What is the appropriate count of graph paper used for developing graph to weave a figured fabric of 80 EPI and 60 PPI using 240 hooks jacquard?
vii. What are the two different jacquard setups used for weaving figured double cloth?
viii. Calculate the size of punching graph for 400 Hooks jacquard set with sectional draft to produce figured double cloth of 600 picks.
ix. Sketch the interlacing diagram of Gauze weave using 4 ends and 4 picks.
x. Name the two mechanisms used in weaving leno fabrics.

II.



a. Arrange the given 12 X 12 design in 1 : 1 Extra warp style in 24 X 12 (6)
b. Indicate its draft and lifting plan (4 + 2)

(OR)

c. Arrange the given 12 X 12 design in 1 : 1 Extra weft style in12 X 24 (6)
b. Indicate its draft and lifting plan (4 + 2)

III. a. Indicate the two weaves of Patent Satin. (4)
b. Indicating the three weaves draw the weft interlacing diagram of Three picks weft Tapestry. (8)

(OR)

c. Distinguish between Traditional Tapestry and Modern Tapestry. (4)
d. Indicating any three weaves, draw the weft interlacing diagram of Four picks weft Tapestry. (8)

IV. a. What are the four stages and its importance involved in developing jacquard graph for punching? (4)
b. Take 48 x 48 graph, divide it with 4 segments. Show these four stages using a small motif. (8)

(OR)

c. Differentiate between warp backed and weft backed cloth structures. (4)
d. Taking a guide graph in 24 X 24, develop warp backed structure in 48 X 24. (8)

V. a. Sketch the drafting diagram of Straight tie - Sectional draft jacquard setup. (4)
b. Indicate the structure of figured two colour Double cloth taking 48 X 48. (8)

(OR)

c. Sketch the drafting diagram of Sectional tie - Sectional draft jacquard setup. (4)
d. Indicate the structure of figured four colour Double cloth taking 40 X 40. (8)

VI. a. Draw the neat diagram showing the formation of Crossed shed in Leno weaving . (4)
b. Sketch the drafting and interlacing diagram to produce stripe effect of Leno with plain weave. (8)

(OR)

c. Draw the neat diagram showing the formation of Open shed in Leno weaving. (4)
d. Sketch the drafting and interlacing diagram of Leno weave to produce Cord effect. (8)

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DIPLOMA IN HANDLOOM AND TEXTILE TECHNOLOGY
FIFTH SEMESTER (OLD – BACK PAPER) – APRIL/MAY-2016

5.2 FABRIC STRUCTURE AND ANALYSIS-IV

Time: 3 Hrs | Max Marks: 80

PART-A

I Answer all the questions within 2 to 3 sentences: 2X10=20

a) Discuss the weaving technique of producing gauze and leno effect in a fabric.
b) Enumerate the importance of Easer mechanism in weaving gauze and leno structures.
c) Name the various sheds in leno weaving.
d) How crossed shed is produced in leno weaving?
e) What do you understand by the term 'True Damask'?
f) What is the purpose of introducing wadding threads in backed cloth structure?
g) Mention the weagving technique of Patent satin structure.
h) Which is the size of Point Paper you would select for designing for a fabric with 64 ends and 40 picks per inch?
i) Suggest a few points for identifying weft direction in a woven fabric.
j) A fabric with 52 inch width, measures 48 inch when the same being removed from loom, what is the weft crimp percentage in the fabric.

PART-B

Answer all the following questions in detail:

II a) Make a comparity study of gauze with that of leno structure. 4
b) With suitable line sketches explain in brief the various sheds formed in leno weaving. 8

OR

c) Discuss the advantage and disadvantage of loose bottom doup with that of fixed bottom doup. 4
d) With suitable diagram, explain in brief the simple cross over effect in Leno weaving. 8

III a) Illustrate the drafting diagram for Pointed draft Leno combined with twill (3 up 1 down) to form stripe effect. 4
b) Draw the thread interlacing diagram for 4 picks for the above structure with lifting plan. 8

OR

c) Illustrate drafting diagram for straight draft Leno combined with plain weave to form stripe effect. 4
d) Draw the thread intrlacing diagram for 4 picks for the above structure with lifting plan. 8

IV a) Discuss in brief the factors influencing the selection of appropriate size of graph paper for textile designing. 4
b) Indicate the drafting order (top view) for weaving 8 thread Damask using pressure Harness. 8

OR

c) Differentiate the warp backed structure with that of weft backed structure. 4
d) By taking 40 ends x 40 picks size, indicate the weave structure of figured warp Backed cloth with 5 thread twill binding. 8

P.T.O.

V a) Describe the jacquard and healds arrangement for weaving patent satin with drafting diagram. 4

b) By taking 16 Ends X 12 Picks guide graph, indicate the complete weave structure of figured pique of 4 picks style-48 Ends X 48 Picks. 8

OR

c) Describe the Jacquard and healds arrangement for weaving figured pique with drafting diagram. 4

d) By taking 16 Ends X 16 Picks as guide graph indicate the complete weave structure of Patent satin, 24 Ends X 32 Picks, woven with straight tie plus healds method. 8

VI a) Analyse the given sample and indicate the following details: 2+2=4

i) Ends per inch, Picks per inch

ii) End use of the cloth sample

b) Find the weave and indicate its draft and peg plan. 4+2+2=8

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DIPLOMA IN HANDLOOM & TEXTILE TECHNOLOGY
FIFTH SEMESTER (REGULAR) EXAMINATION – NOV/DEC-2015

5.2 - FABRIC STRUCTURE & ANALYSIS - IV

TIME: 3 HOURS MAX. MARKS : 80

PART - A

I. Answer all questions in two or three sentences: (2X10=20)

i. How are the warp beams used in guaze and Leno Weaving?
ii. How do you make the crossed shedding easier in Bottom Douping?
iii. Name the healds lifted for open shedding in bottom douping.
iv. Indicate any two differences between bottom douping and top douping.
v. Draw the diagram of a repeat of 8x5 graph count.
vi. Define the term 'Damask'.
vii. What is 'Working comber board'?
viii. Why do we use wadding weft in pique weaving?
ix. Why is picks per inch lesser than ends per inch in most of the handloom fabrics?
x. How do you identify warp direction in the given cloth sample?

PART - B

Answer all questions in details:

II. a. Differentiate Gauze and Leno structure (4 points) (04)
b. Draw neat diagram showing the formation of Crossed shed in bottom doup Leno weaving. (08)

OR

c. Differentiate Easer and Shaker motions (4 points). (04)
d. Draw neat diagram showing the formation of Open shed in bottom doup Leno weaving. (08)

III. a. Illustrate the drafting diagram for Pointed draft Leno combined with plain weave to form stripe effect. (04)
b. Draw the thread interlacing diagram for 4 picks for the above structure with lifting plan. (08)

OR

c. Illustrate drafting diagram for Straight draft Leno combined with twill weave to form stripe effect. (04)
d. Draw the thread interlacing diagram for 4 picks for the above structure with lifting plan. (08)

(6)

IV. a. Indicate the drafting order (top view) for weaving 8 thread Damask using Pressure Harness. (04)

b. Taking 48E x48P size, indicate the complete weave structure of figured Warp Backed cloth with 6 thread twill binding. (08)

OR

c. Differentiate between Warp and Weft Backed cloth (4 points) (04)

d. Taking 20E X 16P guide graph, indicate the complete weave structure of 5 threads Damask in 50E X 48P woven using pressure harness of 2 and 3 decked mail with 5 healds and 3 picks per card. (08)

V. a. Describe the jacquard and healds arrangement for weaving Patent Satin with drafting diagram. (04)

b. Taking 16E X 12P guide graph, indicate the complete weave structure of Figured Pique of 4 picks style in 48E X 48P. (08)

OR

c. Describe the jacquard and healds arrangement for weaving Figured Pique with drafting diagram. (04)

d. Taking 16E X 12P guide graph, indicate the complete weave structure of Patent Satin in 48E X 48P woven using Working Comber Board system. (08)

VI. a. Analyse the given sample and extract the weave repeat (08)

b. Indicate the draft and peg-plan of the weave. (04)

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Guwahati 3

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DIPLOMA IN HANDLOOM AND TEXTILE TECHNOLOGY

SEMESTER EXAMINATION APRIL/MAY-2017 (2014 REGULATION)

Time : 3 Hours **Max. Marks : 80**

V SEMESTER **5.2 FABRIC STRUCRURE - IV**

PART – A

(Answer all the questions within two to three sentences) **2 x 10=20 Marks**

1 What are the different methods of controlling/disposing of floats in extra warp?

2 What is planting in extra warp weaving?

3 Name the series of ends and picks used in patent satin weaving

4 Give one example of traditional fabric in which traditional tapestry technique is used.

5 How will you decide the count of graph paper for enlargement of figures?

6 How many series of ends and picks are used in figured warp backed fabric?

7 What is the punching procedure for 4 colour figured double cloth?

8 Mark the ground & figure weaves of 2 colour Double cloth.

9 What are the types of shed formed in leno weaving?

10 What are the types of doup healds used in leno weaving?

PART-B **12 x 5= 60 Marks**

11 A) Draw an extra warp motif on 16 x 16. **(4)**

B) Taking 1:1 ratio of ground & extra ends mark the full structure for the above motif. **(8)**

(OR)

C) Calculate the number of picks required for enlargement for extra weft design. PPI-80 G:E::1:1 Size of motif – 1" **(4)**

D) Taking a motif on 12 x 12, mark the full structure of extra weft design with 1:1 ratio of ground & extra picks. **(8)**

12 A) What are the types of interlacement of warp & weft threads in patent satin? **(4)**

B) Taking a motif on 6 x 6, mark the full structure of patent satin. **(8)**

(OR)

C) Draw the thread interlacing diagram(flat view) of traditional tapestry(2 picks) structure. **(4)**

D) Indicate the three weaves of 3 pick tapestry structure. **(8)**

13 A) Draw the straight drafting order for straight tie. **(4)**

B) Taking a small motif enlarge on 20 x 20 with suitable binding mark to produce figured single cloth. **(8)**

(OR)

C) What type of effect figured backed cloth produce in fabric? **(4)**

D) Taking small motif on 10 x 10, mark the full structure of weft backed cloth. **(8)**

PTO

14 A) What are different techniques used for producing figured double cloth? (4)

B) Mark the full structure of a 4 colour double cloth by taking a motif on 24 x 24. (8)

(OR)

C) Draw the drafting order for straight tie & sectional draft jacquard set-up for producing double cloth. (4)

D) Mark the full structure of a 2 colour double cloth by taking a motif on 48 x 48. (8)

15 A) Draw the passage of threads in simple leno weaving loom. (4)

B) With line diagram mark the lifting order followed for producing different types of sheds in leno weaving. (8)

(OR)

C) Draw the diagram showing the formation of crossed in leno weaving. (4)

D) Draw thread interlacing diagram & drafting order to produce leno with pointed draft. (8)

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