

Use separate answer
script for each group

Bachelor of Design (B.Des.) Examination, 2018

Semester - VII

Specialization in Textile & Clothing

Course – TC-VII/04

(Textile Technology-III)

Time: Three Hours

Full Marks: 40

Questions are of value as indicated in the margin.

Group-A

Weaving Mechanism, Fabric Structure & Calculation

Answer *any two* questions

1. a) What is the basic difference between simple fabric structures and compound structures? Give at least two examples of each category.
b) Write down schematically the various steps of jacquard figuring.
c) Mention two auxiliary motions of a powerloom and their salient functions in brief.
d) What are the typical end uses of Double Cloth and fabric with Distorted Thread Effect.
 $(1+2)+3+(1+1)+(1+1)=10$
2. a) “Reversing motion is essential in case of negative shedding mechanism.” ----- explain. What is the basic difference between a Tappet and a Cam?
b) What are end uses of Bedford Cord weaves? Technically classify different types of warp yarns used in Bedford Cord weaves.
c) Which types of sheds are normally produced in ordinary handloom and hobby loom respectively?
d) Write down four major components of a Jacquard shedding device and their respective functions in brief.
 $2+2+2+4 = 10$
3. a) Show on the graph paper weaving plan of any two (2) of the following weaves:
i) One-end closed double cloth
ii) a suitable Warp Distorted Thread effect.
iii) a suitable weave repeat of plain faced Bedford Cord with wadding threads.
b) Calculate areal density in g/sq. m of a fabric with following particulars: warp & weft count —
 $2/30^s$ and 40^s Ne respectively; EPCm & PPCm — 30 and 35 respectively; and warp & weft crimp — 6% and 9% respectively.
 $(3+3)+4 = 10$

Group-B

Printing of Textile Substrates

Question No. 1 is compulsory and answer any three from the rest.

1. a) Why TiO_2 is preferred in ‘Khadi’ printing?
b) Rangolite –C is used in disperse printing – True/False?
c) What is synthetic thickener?
d) Differentiate resist and discharge style of printing.
e) Name two compounds which are commonly used as reducing agent. $1 \times 5 = 5$
2. a) What are the advantages and limitations of screen printing?
b) Explain the advantages and drawbacks of emulsion thickener over synthetic thickener? $3+2=5$
3. a) What is style and methods of printing?
b) What do you understand by 2% shade in dyeing and 2% shade in printing? $3+2=5$

P.T.O.

4. Discuss the printing process for producing coloured discharge effect on cotton fabric using suitable colours along with recipe, fixation conditions and after-treatment process. 5
 5. a) Sodium hydrosulphite is suitable for dyeing whereas zinc sulphoxylate formaldehyde is suitable for printing of cotton fabric with vat dyes– Explain.
b) What are the advantages and limitations of printing of cotton fabric with azoic colour? 2+3=5
 6. Discuss the pigment printing process on cotton fabric with aqueous based thickening agent along with recipe, fixation condition and after treatment (if any). 5
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