

B.Des. Semester-V Examination 2014
Specialization in Textile & Clothing
Paper : TC-V/04
Textile Technology-I

Time : Three Hours

Full Marks : 40

Questions are of value as indicated in the margin.

Group-A

Weaving Mechanism, Fabric Structure & Calculation-I

Answer any two questions.

1. (a) Write down the names of different derivatives of tabby weave. 2×5=10
(b) Write down the names of four (4) different types of drafts used in practice.
(c) What is the tex equivalent of a $2/20^S$ Ne coootn yarn?
(d) Write down the names of four (4) twill weave derivatives.
(e) A warp is drawn through a 60^S stockport reed with 3 ends/dent. What will be the EPI in the reed?
2. Show on the graph paper the weaving plan of the following weaves : 5×2=10
(a) A V-twill repeating on 16×4
(b) A 9-end warp corkscrew
3. (a) Write down the different motions of a loom and their main functions. 5+5=10
(b) Show with a schematic diagram the passage of warp and cloth through a fly shuttle frame loom.

Group-B

Preparatory & Allied Chemical Processing

Answer any ten questions from the following

2×10=20

1. (a) What is meant by temporary & permanent hardness?
(b) State the function of common salt in enzyme desizing.
(c) What are the objectives of wool scouring?
(d) How commercial hydrogen peroxide is stored?
(e) What are the objectives of mercerisation?
(f) Sericin and fibroin are both protein, but the former is found to be soluble in hot soop solution unlike fibroin - Why ?
(g) Why degumming is essential before dyeing?
(h) Why crimp is developed after woolenisation of Jute?
(i) What do you mean by photo yellowing of Jute?
(j) Mention the P_H & temperature for wool scouring.
(k) What is the role of formic acid in sodium chlorite bleaching?
(l) What tests would you perform to determine the efficiency of the following pretreatment process?
(i) Scouring, (ii) Bleaching, (iii) Mercerisation.
(m) A white bleached fabric after treating with an optical brightening agent appears more whiter - explain.
(n) What are the objectives of singeing process?
(o) Why jute is acidic in nature?
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