

Time : Three Hours

Full Marks : 40

Questions are of value as indicated in the margin.

Group - A

Weaving Mechanism, Fabric Structure & Calculation-III

Answer any two questions.

1. (a) What do you mean by compound fabric structure? Give three examples.
(b) Write down the detailed classification of double cloth.
(c) Show on the graph paper the weaving plan of a one-end closed and both-end closed double cloth. 2+2+6=10
2. (a) Write down the end-uses of the following category of fabrics :
(i) Double cloth (ii) Bedford cord
(b) Show the weaving plan of a plain faced bedford cord weave with wadding ends.
(c) Write down the different types of jacquard shedding devices used in practice. 2+6+2=10
3. (a) Explain briefly with a schematic diagram the working principle of a single lift single cylinder jacquard. 7+3
(b) A cotton plain fabric is characterized by the following parameters :
warp count = 25 tex
weft count = 15 tex
epcm = 28
ppcm = 30
warp crimp = 6%
weft crimp = 8%

Calculate the areal density of the fabric in gm/m².

Group - B

Printing of Textile Substrates

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

1. (a) What is synthetic thickener? 1×8=8
(b) Name two compounds which are commonly used as hygroscopic agents in print paste.
(c) What type of pigment is used in "Khadi" printing?
(d) Explain the role of binder in pigment printing.
(e) State the advantages of azoic colour printing.
(f) Distinguish between style and methods of printing.
(g) Why printing with pigment colour is so popular all over the world?
(h) Compare discharge & resist style of printing.
2. (a) What is the role of Resist Salt in printing with reactive dyes? 2
(b) What are the functions of a thickening agent in textile printing? 2
3. Discuss the pigment printing process on cotton fabric giving recipe and fixation condition. 4
4. Describe direct style of printing on silk fabric with acid dyes or solubilised vat dye giving recipe, fixation conditions and after treatment processes. 4

P.T.O

5. (a) What do you understand by 2% shade in dyeing & 2% shade in printing? 2
- (b) Sodium hydrosulphite is used as a reducing agent in dyeing with vat colour, whereas sodium sulfoxylate formaldehyde is used as a reducing agent in printing with vat colour? Justify 2
6. (a) Give a typical recipe for printing a polyester fabric with disperse dye along with different fixation conditions. 3
- (b) Resist salt is used as an oxidising agent in reactive printing, whereas sodium chlorate is used for same purpose in disperse printing - why? 1
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