Roll No. .....

Total No. of Page : 3

BT-5/D11 : 7776

TT-305 : Fabric Manufacture-III

Time : Three Hours

Maximum Marks : 100

Note:- i) Attempt FIVE questions in all, selecting at least One question from each unit.
ii) All questions carry equal marks.

UNIT-I

Q.1. Compare between "SULZER" AND "RAPIER" wearing. With the help of neat diagram, discuss the working principle of RIGID rapier loom. 4+16

Q.2 What do you mean by Jet looms? Compare the salient features of Air-jet and water-Jet looms. With the help of neat diagram, discuss the working of water-jet loom. 2+4+14

UNIT-II

Q.3. a) Discuss the theory of uniform package building. Calculate the wind angle and traverse ratio of a cone used as a weft yarn for sulzer loom Assume data yourself. 8+6

b) What do you mean by size add-on? Calculate size add-on for cotton fabrics produced by RAPIER loom. 2+4

Q.4 a) Estimate "Strain energy" in the torsion bar in projectile wearing. Also with the help of neat sketches describe the working principle of torsion bar picking of sulzer loom. 4+8

b) Discuss the theoretical analysis of weft insertion of water jet loom. 8

UNIT-III

Q.5 a) Compare between let - off and take-up motion with the help of neat diagrams, discuss the working principle of electronic let - off motion. 2+10

b) Compare between conventional and unconventional selvedge formation. Also discuss the tuck-in selvedge formation techniques. 2+6

Q.6 a) What is Narrow fabric weaving? With the help of neat diagram, discuss the working principle of narrow fabric weaving. 2+18

UNIT-IV

Q.7 a) What is Non-woven fabric? Classify various techniques of producing Non-woven fabrics

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with the help of neat sketches, discuss the different types of web and bonding techniques. 2+4+14

Q.8 Compare between "SPUN LACED" and "SPUN-BONDED" Non-woven fabric production techniques.

With the help of next diagram discuss the working principle and manufacturing techniques of stitch bonded and spun bonded non-woven fabrics. 4−16