MAJOR : 2017

TXL 372 : Speciality Yarns and Fabrics (Part B)

Max Marks : 50

1. What is the difference between warp way and weft way Multi phase weaving principle. What makes it possible to achieve highest weft insertion rate in this weaving system. Why this technology has not been able to make commercial impact in fabric manufacturing industry ? Draw and explain the shed formation mechanism in multiphase weaving. [2+2+2+4]

2. What is a fibre orientation angle in nonwoven structure ? Nonwovens are engineered fabrics – Justify . Also justify that nonwovens are low cost, less fiber , less labor, less time, reasonably durable , easy process and wide range of products based fabric manufacturing system. [2+2+6]

Justify following statements with max five sentences each, and Each question carries 3 marks only.

3. Warping aims at quality of preparation but not removal of yarn faults.
4. Warping stop motion should be located close to creel. – To avoid fibre loss
5. Finer yarns are sized at higher add on than coarser yarns. – add on = pick up / wt → finer ↓
6. Frictional loading on warp yarn is much lower in multiphase weaving
7. 3D angle-interlock fabrics are used for female body armor.
8. Double leno fabric forms one of the layers of the composite structure of the aerostat.
9. Point system of fabric defect analysis does not help much to fabric manufacturers.
10. Many jeans suffer from skewing.
11. It is important to know critical concentration of dispersion in wet laid process.
12. Woven spacer fabrics can be placed directly in mold with out extra labour.

[3 x 10 = 30]