

**GUJARAT TECHNOLOGICAL UNIVERSITY****B.E. Sem-V<sup>th</sup> Examination December 2010****Subject code: 152903****Subject Name: Fabric Structure –I****Date: 16 /12 /2010****Time: 03.00 pm - 05.30 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Draw designs only on point paper.(Textile graph paper)

- Q.1** Give design, draft and peg plan: **14**
1. Brighten honeycomb on 16\*16
  2. Fancy basket weave on 12\*12
  3. Mock leno on 10\*10
  4. Plain face Bedford cords
- Q.2 (a)** What are satin and sateen weaves? Explain characteristic of these weaves with reasons. State and explain rules for forming best regular and irregular sateen with suitable illustrations. **07**
- (b)** Explain with designs how you will get waved twill effect in a fabric. **07**
- OR**
- (b)** Explain with designs how you will get curved twill effect in a fabric. **07**
- Q.3** Explain characteristics of twill weave with reasons. How the following twills are modified from 8 shafts regular twill. **14**
1. Herringbone 2. Elongated 3. Transposed 4. Broken
- OR**
- Q.3** What are honeycomb weaves? State characteristics and uses of honeycomb fabric. Explain with suitable designs how honeycomb weaves of (a) equal floats and (b) on straight draft are produced. **14**
- Q.4** Explain by giving suitable designs different methods of constructing diamond and diaper weaves, stating basic difference between them. **14**
- OR**
- Q.4** What are welt and pique structures? How are they produced? Explain in stages, along with draft, peg plan and cross sections, how loose back welt, fast welt back and wadded welt are produced. **14**
- Q.5** Explain the following effects in the fabric and how you will get them.(any four) **14**
1. Shot effect
  2. Shadow stripe
  3. Crepe effect
  4. Doria stripe
  5. Seer sucker effect
- OR**
- Q.5** Explain plain weave and plain weave derivatives with different methods of ornamenting and effect of balanced and unbalanced threads.(give at least two designs each of plain weave derivatives with draft, peg plan and denting order) **14**

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