

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE – SEMESTER V • EXAMINATION – WINTER - 2012****Subject code: 152903****Date: 17-01-2013****Subject Name: Fabric Structure - I****Time: 02:30 pm to 05:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Construct design, draft, peg-plan and cross -section of given hopsack (2,7,3) on 12 threads. **07**  
(b) Enlist derivatives of Twill weave. Construct design, draft and peg-plan of Zig-Zag Twill on pointed draft. **07**
- Q.2** (a) With the help of examples, explain the different methods of constructing diamond weave. **07**  
(b) Give design, draft & peg plan for the following: **07**  
i. Sponge Weave ii. Bucksin
- OR**
- (b) What do you mean by sateen derivative. With the help of example, explain how extension of sateen is done in warp direction. **07**
- Q.3** (a) What are the characteristics of Crepe fabric? Explain how superimposing of weaves can be done to obtain crepe weave. **07**  
(b) Write a brief note on seersucker fabrics. **07**
- OR**
- Q.3** (a) Give designs for the following: **07**  
i. Wadded Bedford Cord on 14 x 4 (draw Cross section also)  
ii. Crepon Bedford Cord  
(b) Explain with design, how warp way distorted thread effect is obtained. **07**
- Q.4** (a) Give designs for the following: **07**  
i. Regular warp rib and Irregular weft rib (draw Cross section also)  
ii. Modified Hopsack  
(b) What is denting? What is the difference between denting of plain weave and Hopsack? Why? Explain with suitable examples. **07**
- OR**
- Q.4** (a) What are the characteristics of Toweling fabrics? **02**  
(b) Which weaves are suitable for toweling fabrics? Why? Give one design for each of the toweling weaves. **12**
- Q.5** (a) Construct only design for the following: **07**  
i. Hopsack and rib combination  
ii. Transposed twill with straight draft iii. Mockleno  
(b) Explain with suitable designs, how Herring-bone twill can be produced more economically. **07**
- OR**
- Q.5** (a) Construct only design for the following: **07**  
i. Elongated twill on 70° and 15° ii. Broken Twill  
(b) With suitable designs explain conditions for making any twill prominent, subdued and with intermediate effect. **07**

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