

16128(D) = 0 DEC 2010

B. Tech 5th Semester Examination

Textile Design and Analysis (NS)

TE-315

Time : 3 Hours

Max. Marks : 100

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Candidates are required to attempt five questions in all selecting one question from each section A, B, C & D of the question paper and all the subparts of the questions in Section E.

SECTION - A

1. (a) What are the different weaving plans? How do they help the designer?
(b) What are satinette/sateenette weaves?
(c) Discuss the shade and pattern effect on the fabric design.
(8+4+8=20)
2. (a) How is the direction of warp and weft detected in a fabric without selvedge?
(b) What are the characteristic features of twill weave? Give the various derivatives of twill weave along with their applications.
(c) Describe the color wheel and its significance.
(5+10+5=20)

SECTION - B

3. (a) Differentiate between diamond and diaper weaves with their graphical representation and weaving plans.
(b) Prepare alternate Bedford cord structure along with the plans and the cross sectional view. (10+10=20)
4. (a) Differentiate between huck a back and mockleno weaves.
(b) Discuss the characteristics and method of preparation of crepe weaves.
(c) Prepare a twill based Bedford cord weave. (10+5+5=20)

SECTION - C

5. (a) What are the various methods of preparation of check patterns in a fabric? Give their graphical representation.
(b) Prepare a hounds tooth pattern. (15+5=20)
6. (a) What are the rules governing the combination of different weaves in a stripe and check pattern? Prepare a pattern using weaves turned in opposite direction.
(b) Prepare hairline and step patterns showing color and weave effect. (10+10=20)

SECTION - D

7. (a) Give the classification of double cloth. Prepare the cross sectional view of a self stitched double cloth.
(b) Explain the pile formation process in terry weaves.
(c) What are reversible backed fabrics? (10+5+5=20)
8. (a) What are terry weaves? Prepare a three pick terry structure with cross sectional view.

[P.T.O.]

- (b) A cloth 40.5 inches wide on a 72s Stockport reed is woven with 30s Warp and 30s weft and 60 picks per inch. Selvedges $\frac{1}{4}$ inch on each side drawn 4 ends per dent. The count of the selvedge yarn is same as that of the warp yarn. The length of piece is 30 yards. If regain of the warp is 4%. calculate-
- Total number of ends in warp.
 - Total length of warp yarn in hanks.
 - Total weight of warp yarn in the piece.
 - Total weight of weft yarn in the piece.
 - Total weight of yarn in the piece. (5+15=20)

SECTION - E

9. (a) Define fabric cover and crimp.
- (b) What is mock rib effect?
- (c) What is the difference between shade and tone?
- (d) What is the texture of a honeycomb fabric?
- (e) Prepare a sponge weave.
- (f) What is wadded yarn?
- (g) Prepare a hopsack weave.
- (h) Prepare a warp cork screw weave.
- (i) What is the function of fringing mechanism?
- (i) What are the technical features of a denim and gabardine fabric? (2×10=20)