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B.Sc. FOOTWEAR TECHNOLOGY (BSCFWT)

Term-End Examination

June, 2011

**BFW-040 : MANUFACTURING
TECHNIQUE - I**

Time : 3 hours

Maximum Marks : 70

Note : All questions are compulsory. Use of calculator is permitted.

1. (a) Fill in the blanks. 5x1=5
- (i) Lasting Margin varies according to _____ and _____.
 - (ii) Lining should be _____ mm shorter than the upper from the lasting margin.
 - (iii) Underlay Margin in brogue shoe is _____ mm
 - (iv) Unit of measurement in American Size System is _____
 - (v) Full form of SLL is _____.
- (b) (i) State the difference between Formal and Casual footwear. 5x1=5
- (ii) Define the place where slits and Round off are given in pattern.

- (iii) What is Underlay Margin ? Why do we need it ?
 - (iv) What is the use of Vamp point and Ball point while constructing upper standard ?
 - (v) How many bones do we have in foot ?
- (c) Name the three foot measuring device and explain any two. 5
2. (a) State whether the following assertion are *True* or *False* :- 5x1=5
- (i) Offal area of leather can be used for cutting Tongue pattern of shoes.
 - (ii) The shape of Toe tightness run from heel to Toe while cutting.
 - (iii) Pig leather can be used in shoe making
 - (iv) The thickness range of goat leather is from 1mm to 1.75 mm.
 - (v) Leather grading in a shoe factory is done by table run method.
- (b) Answer *any five* of the following : 5x1=5
- (i) What is purchase cost variance ?
 - (ii) What are the advantages of making layouts ?
 - (iii) How we Sort the leather ?
 - (iv) What is the Lasting allowance ?
 - (v) What is nesting ?
 - (vi) What is mean cuttability coefficient ?
 - (vii) Show the line of tightness in goat skin.

- (c) Answer *any four* of the following : $4 \times 2.5 = 10$
- (i) A shoe factory has received 7000 sq.ft of leather of TR-grade. The price Quoted as Rs. 60/- per sq. ft. after arrival of leather following result is observed on checking the lot :
- | <i>Grade</i> | <i>Quantity</i> |
|--------------|-----------------|
| A | 1575 Sqft |
| B | 2550 Sqft |
| C | 2925 Sqft |
- Calculate purchase cost variance in terms of profit (+) or loss (-).
- (ii) There are two tanneries, 1st tannery is supplying B grade leather @ 65 Rs./sq.ft with area discrepancy of 7% and 2nd tannery is supplying A grade leather @ Rs. 60/ sq.ft with area discrepancy of 10%. What will be the variance in cost if 5000 sq. ft material is purchased from both tannery separately. Which tannery is giving the best value to the buyer ?
- (iii) Explain various type of random tests for selection of leather.
- (iv) What is the purpose of leather grading ? Explain different methods of grading.
- (v) What are the important points which should be considered while storage of leather ?

3. (a) (i) The diameter of a blade size 100 is _____ in metric system. 1x5=5
- (ii) We use _____ twist thread in closing department.
- (iii) In shallow skiving, depth tapers down at _____ degree angle leaving $\frac{1}{3}$ of material thickness at tapered edge.
- (iv) Skiving width for folding should be _____ the folding margin.
- (v) Dressing tool is used for _____ machine.
- (b) Write down the thread consumption formula for chain stitch formation. 1
- (c) Write a short note on construction of threads ? 1
- (d) What do you mean by thread twist ? 1
- (e) What do you mean by skiving ? Explain about underlay skiving. 2
- (f) Describe various needle systems. 2
- (g) Describe various needle points with diagram. 3
4. (a) State *True* and *False* : 1x5=5
- (i) High Quality Cellulose board is bonded with Synthetic Neoprene.
- (ii) Solvent activated toe puff is used for machine lasting.

- (iii) Texon board are also known as insole board.
 - (iv) Leather board is the natural material.
 - (v) Resin, alum and latex are fibres.
- (b) Answer *any five* of the following : 1x5=5
- (i) Write the two important requirement for insole forepart board and insole seat board each.
 - (ii) Name the two different Companies Manufacturing insole board and shank board.
 - (iii) Write the dimensions [L × B × H] of Cellulose Board, shank board and steel shank.
 - (iv) Write down atleast two important parts and function of skiving machine.
 - (v) Write atleast 3 binders used for making fibre board.
 - (vi) Define the following terms :
 - (a) Sole
 - (b) Insole
 - (c) Counter stiffner
 - (d) Steel shank
 - (vii) How will you minimize the wastage while cutting the insole board or shank board.

(c) Answer *any two* of the following : **2x5=10**

- (i) Write the various methods of making fibre board. Explain fourdrinier machine with diagram.
 - (ii) Write the ten important parts and function of travelling head cutter press machine.
 - (iii) A company required 6000 pairs of Toe - puff and counter stiffener each per day. For that component section of company provides these component daily. At the end of the day manager finds that the cutter wasted the material and instead of cutting 156 odd from Toe puff and 125 odd from counter stiffener per sheet he cut 2 odds less from Toe puff and 3 odd less from counter stiffener sheet. Find the loss incurred by the company on that particular day if company is using one - Toe puff sheet of Rs. 250 and counter stiffener sheet of Rs.300 respectively.
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