

**B.Sc. FOOTWEAR DESIGN AND  
PRODUCTION (BSCFWP)**

**Term-End Examination**

**December, 2016**

**BFR-032 : PRODUCT KNOWLEDGE AND  
MATERIAL FOUNDATION**

*Time : 3 hours*

*Maximum Marks : 70*

*Note : Attempt any seven questions.*

1. Fill in the blanks.

10×1=10

- (a) \_\_\_\_\_ is the unit of measurement of leather sole thickness.
- (b) \_\_\_\_\_ arch is only apparent when there is no weight on the force part.
- (c) The outside group of muscles are the two muscles which join the \_\_\_\_\_.
- (d) Full form of TPU is \_\_\_\_\_.
- (e) The bottom of a last forms the \_\_\_\_\_.
- (f) A good midsole of a sports shoe should be light, have excellent \_\_\_\_\_ property and should have the ability to \_\_\_\_\_ after every foot strikes.
- (g) In woven fabrics, the threads of yarns are interlaced at \_\_\_\_\_ angle.

- (h) PUCF can be expanded as \_\_\_\_\_ .
- (i) In a size stick, both feet are measured with " \_\_\_\_\_ " and \_\_\_\_\_ .
- (j) By roughening and scouring we increase \_\_\_\_\_ .

2. Write *True* or *False* for the following : 10×1=10

- (a) Last shortens with increased height of heel.
- (b) The sling back shoe is based on a basic court shoe design.
- (c) A corn is a bubble of fluid on the skin.
- (d) Nearly all footwear styles are adoptions of three basic designs.
- (e) Crimping is done to facilitate lasting in case of moccasin type of slipper.
- (f) Continental heel has usually less curve at the back line than the Louis heel.
- (g) Hollowness in the comb of a last often creates problem for quarters to grip the foot firmly and hence lasts are much thicker at this part.
- (h) Overlap seam is joining two components of upper by a seam along the edges which is then opened out and flattened.
- (i) Rubbed heel lining of a worn sole usually indicates under fitting.
- (j) Plain plated leather is called smooth c/g.

3. What are the different arches found in a human foot ? Describe each one with diagram. 10
4. List the common shoe sizing systems and briefly describe each of them. 10
5. Explain the different types of bottom constructions. 10
6. What is the size of a shoe in English sizing system which is marked as 42 in Paris point ? Show step-by-step calculation.  $2+8=10$
7. (a) Name various types of reinforcements used in a shoe upper.
- (b) Define various bottom components used in a typical closed footwear.  $3+7=10$
8. Draw the cross-sectional diagrams of the following bottom constructions :  $5+5=10$
- (a) Stuck-on Construction
- (b) Welted Construction
9. What are the preoperation check-points for the following operations ?  $5+5=10$
- (a) Lasting
- (b) Stitching