

**M.Sc. CREATIVE DESIGN CAD-CAM (MSCCAD)**

**Term-End Examination**

00157

June, 2017

**MFR-034 : PRODUCT DESIGN PROCESS**

*Time : 3 hours*

*Maximum Marks : 70*

**Note :**

- (i) Attempt any **seven** questions.
- (ii) All questions carry equal marks.

1. Write down minimum ten safety points which must be followed by a clicker in the cutting department. 10
2. Explain the different types of clicking dies used in the footwear industry in brief. 10
3. Explain what the purpose of leather grading is. What is the method of grading within a tannery? 10
4. Write down any seven physical tests for leather in brief. 10
5. Explain about Zero Degree Method of RSM for cow C.G. leather with formula. 10

6. Write the names of main and ancillary stitching machines used in the stitching department with their uses. 10
7. What is skiving ? What are the factors affecting skiving ? Explain the different types of skiving with a diagram. 10
8. Write down the names of different types of tools used in closing department with their uses (at least ten). 10
9. Prepare a table showing the major and minor quality check points while checking the upper cutting operation. 10
10. Write down the sequence of operations for making a Derby upper which has the following components : 10

*UPPER COMPONENTS :*

- (i) Vamp with tongue attached (2 pcs)
- (ii) Quarters (4 pcs)

*LINING COMPONENTS :*

- (i) Vamp Lining (2 pcs)
- (ii) Quarter Lining (4 pcs)
- (iii) Heel Grip (2 pcs)
- (iv) Tongue Lining (2 pcs)