

**M.Sc. FOOTWEAR TECHNOLOGY  
(MSCFWT)**

**Term-End Examination  
December, 2012**

**MFW-034 : POLYMER AND DMS SPORTS SHOE  
TECHNOLOGY**

*Time : 3 Hours*

*Maximum Marks : 70*

*Note : Attempt any five questions in all. Question No. 1 is compulsory.*

1. Answer the following questions : 2x7=14
- (a) Define Monomer.
  - (b) What are the elastomers ? Give its application.
  - (c) Write the various types of rubbers used for shoe soling.
  - (d) What do you understand by DMS Technique ?
  - (e) Write various applications of polyurethane in shoe manufacturing.
  - (f) Which polymeric materials can be used for Toe puff manufacturing ?
  - (g) Write various polymeric material used for sole manufacturing.

2. What do you understand by EVA compound ? 14  
Discuss in detail EVA compounding for shoe midsole manufacturing.
  
3. (a) Explain D.I.P. technology. Discuss the 7  
advantages and disadvantages of D.I.P  
method for sole manufacturing.
- (b) Write down the various advantages and 7  
disadvantages of compression moulding  
technique for sole manufacturing.
  
4. Define Midsole. Why midsole is important in 14  
sports shoe ? Write the various polymeric materials  
used for midsole in sport shoe. What are various  
properties required for midsole ?
  
5. What do you understand by injection moulding 14  
technique ? Give details of sequence of operation  
in injection moulding technique used in sole  
manufacturing. Write the advantages and  
disadvantage of injection moulding technique.
  
6. What are the ideal properties of a shoe sole 14  
material ? Write the various polymeric materials  
used in sports shoe manufacturing. What are the  
various components used in sports shoe ?