

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

00214

Term-End Examination

June, 2014

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

Time : 3 hours

Maximum Marks : 70

*Note : Attempt any **five** questions. All questions carry equal marks.*

1. Write various applications of PVC polymer. What are the advantages and disadvantages of PVC as a soling material ? 14

2. What do you understand by macro molecular form of polymers ? Why are polymers called the most versatile material in the world ? Explain polymer versatility by giving suitable examples. 14

3. Explain the following terms by giving suitable examples : 14
 - (a) Biodegradable polymers
 - (b) Non-Biodegradable polymers

4. Write the characteristics and applications of the following rubbers : 14
- (a) Styrene Butadiene Rubber (SBR)
 - (b) Nitrile Butadiene Rubber (NBR)
 - (c) Chloroprene Rubber (Neoprene)
 - (d) EPDM Rubber
5. (a) How do you distinguish a polymer from its monomer ? Explain by giving examples.
- (b) Explain the following :
- (i) Degree of Polymerisation (DP)
 - (ii) Physical Properties of Polymers
 - (iii) Thermal Response of Polymers
 - (iv) Mode of Formation of Polymers 14
6. How are Plastic, Rubber and Fibre classified on the basis of their characteristics ? Classify the basis of fibre selection in the industries on the basis of their inherent properties. 14
7. Explain how the application of poly-ethylene is widespread in various Industrial and Commodity applications. Compare the properties of HDPE and LDPE with suitable examples. 14
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