

00171

B.Sc. FOOTWEAR TECHNOLOGY (BSCFWT)

Term-End Examination

December, 2013

BFWE-044 : POLYMER TECHNOLOGY

Time : 3 hours

Maximum Marks : 70

Note : Attempt any five questions. Each question carry equal marks.

1. Write down the characteristics and applications of the following: 14
 - (a) Polystyrene
 - (b) Chloroprene Rubber (Neoprene)
 - (c) NBR Rubber
 - (d) EPDM Rubber

2. Explain the processing characteristics and sequence of application of following ingredients added during mixing of Elastomers: 14
 - (a) Reinforcing Fillers
 - (b) Process Aids
 - (c) Antioxidants
 - (d) Accelerators

3. Describe the functions of one of the following equipments diagrammatically used during polymer processing: 14
 - (a) Kneader
 - (b) Extruder
 - (c) Injection Moulding

4. Explain the extraction of Natural Rubber from trees. Write down the biological name of Rubber Tree. Mention the international and Indian nomenclature and grading systems used for Natural Rubber. 14
5. (a) What do you understand by the following terms: 14
(i) Isotactic Polymer
(ii) Atactic Polymer
(b) Explain the Macromolecular concept of polymer with suitable examples.
6. Explain the following terms with suitable examples: 14
(a) Homopolymer and Copolymer
(b) Thermoplastic and Thermosetting Elastomer
(c) Crystallinity and Amorphous Polymer
7. Discuss the characteristics and advantages of the following: 14
(a) PVC
(b) PU
(c) PE
-