

B.Sc. FOOTWEAR TECHNOLOGY (BSCFWT)

Term-End Examination

June, 2017

00254

BFWE-044 : POLYMER TECHNOLOGY

Time : 3 hours

Maximum Marks : 70

Note : Answer any **seven** questions. All questions carry equal marks.

1. What are the various classes of polymers ? Describe any one type of polymer with suitable examples. 10

2. Describe the functions of the following equipments used during polymer processing. Draw neat diagrams. 10
 - (a) Kneader
 - (b) Injection moulding

3. Explain the production of PVC unit sole with the help of a flow chart. 10

4. What are the ingredients used for EVA mid sole compound ? State the purpose of each ingredient. Also discuss the applications of EVA in the footwear industry. 10

5. Explain the macromolecular concept of polymers with suitable examples. 10
6. Define the term polymerization. Why do thermoplastic polymers get softened on heating? 10
7. Write the monomers of PVC and SBR. Which polymeric materials are commonly used in shoe uppers? Give justification. 10
8. Discuss the uses of different polymeric materials in the footwear industry. Write the ideal qualities of a shoe soling material. 10
9. List the various types of polyurethanes. What are the properties of polyurethanes? State various applications of polyurethanes in the footwear industry. 10
10. Write short notes on the following : $4 \times 2 \frac{1}{2} = 10$
- (a) Composites
 - (b) Blends
 - (c) Copolymer
 - (d) Elastomer
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