

B.Sc. FOOTWEAR TECHNOLOGY (BSCFWT)

Term-End Examination

00026

June, 2016

BFWE-018 : POLYMER TECHNOLOGY – I

Time : 3 hours

Maximum Marks : 70

Note : Attempt five questions in all. Question no. 1 is compulsory. Each question carries equal marks.

1. (a) Describe thermosetting elastomers.
 - (b) What do you understand by vulcanization of rubber ?
 - (c) What do you understand by light-weight soling materials ?
 - (d) Define copolymers.
 - (e) Which polymeric materials can be used for shoe soles ?
 - (f) Describe direct moulding system.
 - (g) What does TPU stand for ? 7×2=14
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2. Give the classification of polymers. Discuss different types of polymers in brief. 14

3. Discuss the various properties of EVA, and also discuss the various compounding ingredients added to EVA to make light-weight soling material. 14
 4. Define midsole. What are the various properties required in midsole ? Also write down some polymeric materials used as midsole. 14
 5. Explain the process of rubber compounding. Describe the stages of addition of different additives during compounding. 14
 6. Discuss the manufacturing process of ribbed smoked sheets of natural rubber. 14
 7. Write short notes on the following : $2 \times 7 = 14$
 - (a) Average Molecular Weight and its significance
 - (b) Thermal Behaviour of Polymers
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