

B.Sc. FOOTWEAR TECHNOLOGY (BSCFWT)

Term-End Examination

December, 2016

00083

BFWE-044 : POLYMER TECHNOLOGY

Time : 3 hours

Maximum Marks : 70

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

1. (a) Classify polymers based on synthesis.
 - (b) What is the monomer of EVA ?
 - (c) What do you understand of Average Molecular Weight ?
 - (d) Define glass transition temperature.
 - (e) What do you understand by Polydispersity Index ?
 - (f) What do you understand by cross-linked polymer ?
 - (g) Define Vulcanization.
- 7×2=14**

2. Discuss the processing characteristics and sequence of applications of various ingredients added to the rubber during compounding of rubber. 14
 3. What are the various types of polyurethanes ? Discuss the various processing techniques used to process polyurethane. 14
 4. What do you understand by thermosetting and thermoplastic materials ? Discuss the various thermosetting and thermoplastic materials used in shoe sole manufacturing. 14
 5. Discuss the functional entities of an injection moulding machine. 14
 6. Describe the functions of kneader diagrammatically, used for mixing of rubber during rubber compounding. 14
 7. Discuss the properties, advantages and disadvantages of the following polymeric materials : 14
 - (a) TPR (Thermoplastic rubber)
 - (b) TPU (Thermoplastic polyurethane)
 - (c) EVA (Ethylene vinyl acetate)
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