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MFW-034

M.Sc. FOOTWEAR TECHNOLOGY

(MSCFWT)

Term-End Examination

00135

June, 2015

MFW-034 : POLYMER AND DMS SPORTS SHOE TECHNOLOGY

Time : 3 hours *Maximum Marks : 70*

Note : *All questions are* ***compulsory.***

1. (i) What are the different types of sports shoes ?

(ii) State the different polymeric materials used for shoe soles.

(iii) Define Outsole.

(iv) Discuss D.V.P. technique of shoe manufacturing.

(v) What are elastomers ?

(vi) What is reaction injection moulding (R.I.M.) for PU processing ?

(vii) Define thermosetting polymers.

(viii) What are the upper materials for sports shoes ?

(ix) Define Poromerics.

(x) Define blends and composites. *10×1=10*

2. (i) Write the advantages of injection moulding process.

(ii) Draw a flow chart of production of canvas shoe.

(iii) Write the various properties of polyurethanes.

(iv) Why is EVA a very good midsole material ? Comment.

(v) State the advantages of direct injection process over other shoe manufacturing processes. *5×3=15*

3. Attempt any ***four*** questions of the following : *4×7=28*

(i) Discuss the sequence of operation of compression moulding.

(ii) What are the various advantages and disadvantages of PU as a soling material ? Discuss.

(iii) Write the ideal qualities of shoe upper materials.

(iv) What are the different rubber compounding ingredients ? Discuss.

(v) What do you understand by direct injection process of shoe manufacturing ? Discuss the detailed process with suitable diagram.

4. Explain in detail the production process of PVC sole manufacturing with the help of a flow chart. *17*

OR

What are the processing techniques to process polyurethanes ? Discuss the R.I.M. technique. State its advantages and disadvantages. *17*
