

Third Semester
Textile Technology
Scheme July 2008
TEXTILE FIBRE (304)

Time : Three Hours

Maximum Marks : 100

- Note :** i) Attempt total six questions. Question No. 1 (Objective type) is compulsory. From the remaining questions attempt any five.
ii) Draw sketch wherever necessary.

1. Choose the correct answer. 2 each
- i) The maturity of cotton is defined in term of the development of
 - (a) Secondary Wall
 - (b) Cuticle
 - (c) Primary Wall
 - (d) Size of Lumen
 - ii) Nature of synthetic fiber
 - (a) Hydrophobic
 - (b) Hydrophilic
 - (c) Both (a) and (b)
 - (d) None of these
 - iii) Linen fabric is made from
 - (a) Jute
 - (b) Flax
 - (c) Coir
 - (d) Protein fiber
 - iv) Wool protein is called
 - (a) Cellobiose
 - (b) Keratin
 - (c) Fibroin
 - (d) Dacron
 - v) Acrylic fibres have the cross-sectional shape of
 - (a) Round
 - (b) Oval
 - (c) Dogbone
 - (d) Serrated
2. a) What is polymerisation process? Compare condensation polymerisation process with addition polymerisation process. 6
b) What are the various process involved in manufacturing of Viscose Rayon? Explain with flow sheet diagram. 12

3. a) Explain the classification of Wool by Fleece and mention the uses of silk. 10
- b) What is the difference between 'Textured' and 'untextured' yarn? 8
4. a) What is the object of Texturisation? Classify textured yarn. Explain False Twist Texturisation process with the help of neat sketch. 12
- b) Explain in brief various fine structure of Textile Fibre. 6
5. a) Write in brief the principle of 'Wet', 'Dry' and 'Melt' spinning? Explain all of them with examples and sketch. 12
- b) Define polynosic fibre. Explain how does it differ from viscose Rayon manufacturing. 6
6. What are 'Acrylics' and 'Mod Acrylics'? Explain the manufacturing of Acrylic fibre with a flow sheet diagram. Starting from Basic raw material. Also mention uses of Acrylic Fibre. 18
7. a) Write down the density and Moisture regain of the following. Cotton, Wool, Silk, Nylon and Viscose. 6
- b) What is a textile fibre? Explain the essential properties of a textile fibre. 12
8. Write short notes on any three : 6 each
- a) Polyurethane fibre
- b) Identification of textile fibre
- c) Amorphous and Crystalline region
- d) Classify 'Man-Made Fibre'
- e) Compare the physical properties of Silk and Wool.

