

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) During viscose manufacturing process glucose is added in the spinning bath to
- (a) Increase the strength
(b) Increase the dye affinity of the fibre
(c) Make the fibre more pliable
(d) Decrease the luster
- ii) In cotton wide lumen is found in
- (a) Immature fibre (b) Mature fibre
(c) Dead fibre (d) Normal fibre
- iii) Acrylic fibres have the cross-section shape of
- (a) Serrated (b) Oval
(c) Round (d) Dog bone shaped
- iv) Which polymer is suitable for manufacturing polypropylene filament?
- (a) Syndiotactic mainly (b) Isotactic mainly
(c) Atactic mainly (d) None of the above
- v) Maximum moisture is regained by
- (a) Viscose fibre (b) Silk fibre
(c) Wool fibre (d) Cotton fibre

2. What is a Nylon fibre? How is it being named? Starting from raw material explain the process of manufacturing of Nylon 6, 6 with the help of a flow sheet diagram. 18
3. What are the various processes involved in manufacturing of viscose Rayon? Explain in detail the process of manufacturing and spinning of viscose Rayon with a flow sheet diagram. 18
4. a) Classify textile fibre in a tabulated form. 10
b) Explain the classification of wool by Fleece. 8
5. a) What do you understand by the terms 'Degree of polymerisation', 'Crystalline', 'Amorphous' and 'Orientation' in a fibre. How these factors determine the strength and durability of the fibre. 10
b) Give the flow sheet of spinning process to convert raw cotton into combed and carded yarn. 8
6. What are 'Acrylics' and 'Mod Acrylics'. Explain the processes of spinning of Acrylic fibres with flow sheet diagram starting from basic raw material. 18
7. What do you understand by the term 'Texturising'? Name various methods of texturising processes. Explain in detail clearly illustrating with sketch any one method of texturising. 18
8. Answer any three of the following: 6 each
 - a) Give specific gravities (densities) of textile fibre in your syllabus in descending order
 - b) Write notes on 'Sericulture of silk'
 - c) Write notes on 'Bast fibres'
 - d) Raw material and uses of Polypropylene fibre
 - e) Various theories regarding fine structure of fibre

