THIRD SEMESTER
TEXTILE TECHNOLOGY
SCHEME JULY 2008
TEXTILE FIBRE (304)

Time : Three Hours *Maximum Marks : 100*

Note : Attempt total **six** questions. Question No.**1** **(objective type)** is **compulsory**. From the remaining questions attempt any **five**.

1. Choose the correct answer (2 each)

   i) Which polymer is heavy by weight

   (a) Nylon, 6 (b) Polypropylene

   (c) Polyester (d) Nylon 6, 6

   ii) Silk protein is called,

   (a) Keratin (b) Sericin

   (c) Fibroin (d) Cellobiose

iii) Calcium bisulfite is used in viscose manufacturing for,

(a) Increasing strength

(b) Purification purpose

(c) Delusturing effect

(d) Making the fibre pliable and soft

iv) Acrylic fibres have the cross-sectional shape of

(a) Serrated (b) Dogbone shaped

(c) Round (d) Oval

v) Lycra is a _____ fibre

(a) Regenerated (b) Polypropylene

(c) Elastomeric (d) None of these

2. What are the various processes involved in manufacturing viscose rayon? Explain in detail the process of manufacturing and spinning of viscose rayon with a flow sheet diagram. 18

3. a) What is texturing? What are the different methods of texturing? Explain any one method of texturing in detail. 12

   b) What are the essential properties of textile fibre? 6

4. a) Give the flow sheet of spinning processes to convert raw cotton into combed and carded yarn. 9

   b) Define 'crystalline' and 'amorphous' region of fibres. 9

5. a) Write down the moisture regain value of cotton, silk, wool, viscose, polyester, nylon 6, nylon 6,6 acrylic and polypropylene. 9

   b) Explain sericulture and silk throwing. 9

6. What do you understand by wet, dry and melt spinning of man-made fibres? Explain with examples and sketches. 18

7. a) Explain the classification of wool by fleece. 9

   b) What do you understand by the terms 'Degree of polymerisation' and 'orientation of fibre'. 9

8. Answer any three of the following 6 each

a) Microscopic and burning test of textile fibre

b) Classification of textile fibre

c) Linen fibre

d) Structure and properties of polypropylene

e) By products of cotton and wool