B. Tech.
(SEM. VIII) EXAMINATION. 2006-07
TEXTURED YARN TECHNOLOGY

Time : 3 Hours] [Total Marks : 100

Notes : (1) Attempt all questions.
        (2) All questions carry equal marks.

1. Attempt any four of the following:
   (a) What do you mean by texturing? Give classification of textured yarns.
   (b) With the help of neat diagram, explain different yarn feeding systems used on texturing machine.
   (c) Explain different modes of heat transfer used in texturing machine.
   (d) Explain contact type of heater used in texturing machine with the help of neat diagram.
   (e) State the advantages of textured yarns over spun yarns.
   (f) Explain different yarn take-up systems used on texturing machine with the help of neat diagram.
2. Attempt any **four** of the following:
   
   (a) With the help of neat diagram explain the principle of working of false twist texturing machine.
   
   (b) Explain the passage of yarn through different parts of texturing machine used to produce false twist textured yarns.
   
   (c) Explain, in detail, developments in yarn twisting elements used in false twist texturing machine with the help of neat diagram.
   
   (d) State and explain the influence of different process variables on the quality of false twist textured yarns.
   
   (e) What do you mean by posi-torque principle? Explain its advantage during the process of texturing.
   
   (f) Explain some of the quality related problems with friction texturing process.

3. Attempt any **two** of the followings:
   
   (a) State difference types of stuffer box texturing process and explain any one, in detail, with the help of neat diagram.
   
   (b) Explain, in detail, the influence of process variables on quality of stuffer box crimped yarns. Also mention the application areas for these varieties of yarns.
   
   (c) What is draw texturing process? Explain different types of machines available for draw texturing process with the help of neat diagram.
4. Attempt any **two** of the following:

   (a) Give classification of air-jet textured yarns. Explain the principles of working of air-jet texturing machines used to produce different types of air-jet textured yarns.

   (b) Explain, in detail, the process variables influencing the quality of air-jet textural yarns.

   (c) Explain the principle of working of edge crimping machine with the help of neat diagram. Discuss, in detail, various parameters influencing the quality of edge crimped yarns.

5. Attempt any **two** of the following:

   (a) Explain, in detail, different methods available for texturing of cellulosic fibres.

   (b) Discuss, in detail, different steps involved in the texturing of nylon with the aid of solvents. What do you say about the properties of solvent textured yarns in comparison to that of ordinary textured yarns.

   (c) Explain, in detail, morphological changes in fibre introduced by mechano-thermal form of texturing process.