THE TEXTILE ASSOCIATION (INDIA)
A.T.A. (REVISED) PART-I EXAMINATION – 2012
PAPER – A 1.3
TEXTILE FIBRES
MARKS : 100

Date: 24.12.2012
Time: 10 am to 1 pm

Instructions:
1. Attempt six questions out of which Q.1 is compulsory
2. Answer each next main question on new page
3. Figure to the right indicate full marks
4. Illustrate your answer with sketches and flow chart wherever necessary
5. Use of non programmable electronic pocket calculator permissible.
6. Mobile and any other communication devices are not allowed in exam hall.
7. Assume suitable data wherever necessary.

Q. 1. State whether the following statements are true or false and if it is false rewrite the correct statement. (20)
   a. Viscose is having higher wet strength.
   b. Cotton is soluble in 10% sulphuric acid.
   c. Cotton is having lower moisture content than wool.
   d. Polyester is having higher alkali resistance.
   e. Acrylic fibre is used as substitute fibre for wool in winter garments.
   f. Manufacturing of rayon is carried out by melt spinning method.
   g. Main component of silk filament is sericin.
   h. Polyester is soluble in 70% w/w sulphuric acid.
   i. Nylon is polyamide fibre.
   j. Burning of cotton give smell of burning of hair.

Q. 2. a. What are different types of spinning method used for the manufacturing of synthetic fibres? Explain any one method in detail. (08)
      b. Give classifications of fibres in detail with examples. (08)

Q. 3. Write short notes on
   a. Importance of Identification of textile fibres.
   b. Recent development in man-made fibres. (16)

Q. 4. a. Describe the importance of blending of fibres. Also explain the properties of polyester and viscose blended fabrics. (08)
      b. Give the various chemical properties of wool (08)

Q. 5. a. Describe in detail the manufacturing of acrylic fibre. (08)
      b. Give the names of raw materials and reactions involved in the manufacturing of polyester. Also discuss the physical properties of polyester. (08)

Q. 6. Describe in detail the effect of heat, light, acids, alkalis on all textile fibres. (16)

Q. 7. a. Discuss in brief the production of raw silk. (08)
      b. Discuss in detail the identification of wool and silk by microscopic, chemical and burning methods. (08)

Q. 8. Discuss in brief:
   a. What are the raw materials used for manufacturing of nylon?
   b. Draw longitudinal and cross sectional view of cotton fibres.
   c. Give the application of Jute and flax fibres.
   d. Explain solubility test for cotton and silk.

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