Register No: ……..

B.TECH DEGREE EXAMINATIONS: APRIL/MAY 2011

Sixth Semester

TEXTILE TECHNOLOGY

U07TTE02: Texturizing Technology

Time: Three Hours **Maximum Marks: 100**

Answer All Questions

PART A (10 x 1 =10 Marks)

1. Texturing temperature for polypropylene fibre is ---------- °C

   a) 230 b) 145-165 c) 200 d) 230-240

2. Melting point of polyester fibre is ---------- °C

   a) 256 b) 210 c) 180 d) 175

3. In modern spinning take up heads, POY package weight upto ------- kg are now commonly supplied for texturing.

   a) 15 b) 5 c) 35 d) 50

4. Spindle speed in draw texturing machine is ---------- rev/min

   a) 80000 b) 800000 c) 250000 d) 18000

5. Air consumption in air jet texturing machine is ----------

   a) 14 m^3/h b) 25 m^2/h c) 65 m^3/h d) 72 m^2/h

6. In twist de-twist method, the yarns are twisted upto ---------- tpm

   a) 100-2000 b) 2000-3000 c) 4000-5000 d) 200-300

7. The texturised yarn has extensibility of ---------- %

   a) 100 b) 89 c) 400 d) 50

8. In false twist texturing, the false twist spindle rotate at a speed of ------ rpm

   a) 50000-100000 b) 200-400 c) 500-1000 d) 7000-10000

9. In knit-de-knit method, knitting and heat setting can be done in the ----------

   a) Knitting head b) yarn feed c) setting device d) winder

10. Which texturing method gives high bulk to yarn

    a) Air jet b) false twist c) edge-crimp d) stuffer-box

PART B (10 x 2 = 20 Marks)

11. Write the purpose of Texturization and give the classification of processes.

12. Compare the texturised and untexturised yarn properties with suitable examples.

13. Write the working principle of draw Texturising machine.

14. Write the factors influencing false twist Texturising process.
15. Briefly discuss the precautions to be taken while dyeing of texturised blended yarns.
16. List out the merits and demerits of “Draw Texturizing Technique”.
17. Enumerate the properties of yarns produced in “Air Jet Texturizing Technique”
18. Enlist the various process parameters in “Air Jet Texturizing Technique”.
19. State basic principle of “Edge Crimping Technique”.
20. What is “Chemo-Mechanical Texturing”?

PART C (5 x 14 = 70 Marks)

21. a) Describe the physical and mechanical properties of texturised yarn structure and geometry.

(OR)

b) Compare the characteristics of spun, filament and textured yarns and also discuss the need for bulking of synthetic filaments.

22. a) Briefly explain the factors influencing twist in false twist texturising.

(OR)

b) Explain the effect of heat setting on fibre morphology and mechanical properties. Also discuss about “mechanisms of setting”.

23. a) Describe the Texturising process of cellulosic, polyester/cotton blends and silk fibres

(OR)

b) Briefly discuss a few finishing processes needed for textured yarn.

24. a) Explain the basic principle of air jet Texturising and also discuss the process variables affecting the yarn properties.

(OR)

b) Briefly explain the testing of textured yarn with testing procedure.

25. a) With a neat sketch explain the working principle, limitations and applications of “Knit-Deknit texturisng”. Explain in detail how texturing of polypropylene can be done.

(OR)

b) With a neat sketch explain the working principle, limitations and applications of “friction texturising”. Explain the role of spin finish on texturised yarn.

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