

Register Number.....

B.TECH. DEGREE EXAMINATIONS: NOV/DEC 2012

Fifth Semester

TEXTILE TECHNOLOGY

TTX108: Spinning Technology II

Time: Three Hours

Maximum Marks: 100

Answer All Questions:-

PART A (10 x 1 = 10 Marks)

1. Doubling of slivers in draw frame is to
 - A) Improve the uniformity of the output sliver
 - B) Increase the unevenness of the sliver
 - C) Removal of short fibres
 - D) Reduce floating fibres in the drafting field
2. For an ideal yarn , index of irregularity should be
 - A) Greater than one
 - B) Less than One
 - C) Nearly approaches one
 - D) Based on short fibres
3. Balloon control rings in ring frame is to
 - A) To control the balloon tension
 - B) For smooth twisting by traveller
 - C) To avoid lashing-in of adjacent ends
 - D) To control the ring rail movement
4. The function of break draft in ring frame is
 - A) To control the fibre movement in the drafting field
 - B) To break the twist in roving
 - C) To control end breaks in ring frame
 - D) To avoid stretch in ring frame creel
5. The function of lattice apron in compact spinning is to
 - A) 800 -3000 T/m
 - B) 30 -500 T/m
 - C) 1000 -2500 T/m
 - D) 300 -1500 T/m
6. Normally the twist takes place in OE frame for cotton is
 - A) Avoid fibre entanglement
 - B) Reduce the load on the double apron drafting system
 - C) Condense the fibres by suction for compacting
 - D) To assist in twisting
7. The TM for spinning combed compact spun process is
 - A) Lesser TM than ring spun yarn
 - B) Greater TM than ring spun yarn
 - C) Same level of twist to be used
 - D) Depends on count to be spun

8. OE spinning is used to produce
A) Fine count B) Coarse count C) Medium count D) HT Yarn
9. Snarl yarn is produced by twist level
A) 25 % lesser than normal used conventional single yarn
B) Same twist level as normally used in conventional single yarn
C) 25 % greater than normal twist level used in conventional single yarn
D) None of the above
10. The chenille profile was originally made to produce
A) Plain weave B) Sateen C) Satin D) Leno

PART B (10 x2=20 Marks)

11. Write the principle of roller drafting
12. Write the function of traveller
13. List out the properties of Ring spun yarn
14. Give the aprons specifications used for ring spinning
15. Write any two application of compact yarn
16. Differentiate Ring and compact yarn
17. What are all the raw materials requirements for rotor spinning
18. Write the principle of air jet spinning
19. Brief on TFO twister
20. What do you mean by SIRO spinning

PART C (5x14=70 Marks)

21. a) Explain with necessary illustration the balloon theory concepts.

(OR)

- b) (i) Explain with neat Sketches the concepts of Roller eccentricity, and Stick slip phenomenon in Draping system. (7+7)

22. a) With neat sketches, Explain the Salient features and functions of 'SKFPA225' draping system used in Ring frame.

(OR)

- b) (i) Explain the building mechanism of cop formation in a ring frame. (10)
(ii) Mention the importance of ring rail movement for winding and binding coils. (4)

23. a) Explain with neat Sketches, the principle of compact spinning mention the various methods of compacting systems used in Ring Spinning and give the advantages and disadvantages of each system. (6+8)

(OR)

b) Write short notes on

(i) Spinning Geometry & its significance in compact spinning (6)

(ii) Techno-economics of compact spinning (4)

(iii) Yarn structure of ring and compact yarn (4)

24. a) (i) Explain the principle of yarn formation in rotor spinning system. (10)

(ii) Mention the improvements in yarn quality in rotor spinning. (4)

(OR)

b) With neat sketches, explain the yarn formation mechanism in friction and air jet spinning system(7+7)

25. a) Describe the methods of manufacturing of FANCY YARNS in doubling machines.

(OR)

b) Write short notes on

(i) SIRO spinning (6)

(ii) Twist less Yarn (4)

(iii) Self twist spinning (4)
