Register Number.....

M.TECH. DEGREE EXAMINATIONS: JANUARY 2009

First Semester

TEXTILE TECHNOLOGY

P07TXE 03 Long Stable Spinning Technology

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

Answer ALL Questions:-

PARTA (20 x 1 = 20 Marks)

1. Wool Vegetables fragments are remover by ----------
a) Wool Carbonizing b) Blow room c) opening d) Treated with H_2O_2

2. During scouring a large amount of impurity is remove from wool, mainly in the _____
a) First bowel b) Second Bowel c) Third Bowel d) fourth bowel

3. Reasons for blending of cotton and wool
a) Produce a uniform product
b) reduce production cost
c) enhance specific properties
d) Produce a uniform product, reduce production cost, and enhance specific properties

4. In worsted carding, VM (Vegetable matter) is removed by ----------
a) Card cylinder b) licker in c) Doffer d) Burr Beater

5. In carding section, the clothing points of the stripping rollers are angled in the same direction as the workers but travel at a ----------
a) Low surface speed b) fast surface speed c) medium surface speed d) very low surface.

6. Point-of-tooth to point-of-tooth gives the ----------action
a) Stripping b) carding c) stripping and carding d) transfer

7. The microtuftlets and individual fibres retained an the taker –in clothing are transferred to the cylinder clothing by the ----------
a) Point –of –tooth to back – of- tooth b) Back-of the tooth
c) Point –of –tooth to Point –of –tooth d) Back-of –tooth to back-of-tooth

8. Traditionally, after worsted carding the wool sliver may be given a wet-cleaning treatment called----------
a) Lubricants b) wet-dry cleaning c) back washing d) front washing

9. Feed gill is used to control ---------- gille
a) 1-4 b) 5-8 c) 10-15 d) 24-32

10. In France comb the nipped sliver fringe is combed by the ----------row of pin on the cylinder comb
a) 1-4 b) 6-12 c) 17-18 d) 24-28

11. The combed wool slivers is also called ----------
a) Combed tow b) Combed top c) gill tow d) finishing tow

12. In worsted processing, the ratio of top and noil is called the ----------
a) Top % b) Noil % c) Combed % d) Tear

13. ---------- RH% & --------- temperature are to be maintained in wool mechanical process in order to control the static problems
a) 70 to 80% and 21^0c b) 50-60 % and 28^0C
c) 90-95^0c and 18^0c d) 45-50% and 30^0c

14. ----------%RH and ---------- temperature are used in the preparatory process stages for wool

a) 45-55% and 27^0c b) 60-65% and 27^0c
c) 70-80% and 21^0c d) 50-60% and 18^0c

15. The spinning mule was created in 1779 by
a) Samuel Crompton b) John Kay c) Richard Arkwright d) Thomas Highs,

16. The doublings help to reduce any irregularity present in the input material, a minimum of -------, and up to ------, gilling stages are used.
a) 5 and up to 8 b) 6 and up to 2 c) 3 and up to 7 d) 4 and up to 9

17. For pure wool strands the drafting is achieved using _____ pairs of rollers with the middle pair having a central recess and driving a pair of aprons which lightly grip the strand.

a) 5 b) 2 c) 3 d) 4

18. Each turn of twist in the yarn requires a complete rotation of the package (bobbin) and, for a fine weaving yarn, it is typical for _____to be inserted.

a) 500 to 1000 turns/m b) 15-50 turns/m
c) 60-80 turns/m d) 200-300 turns/m

19 Worsted Systems for _____
a) Fibers 2-10" long b) Fibers 12-15" long c) Fibers 16-19" long d) Above 20"

20 Woolen draft ratios are typically _____and almost never higher than _____.
a) 70 % and almost never higher than 80% & 8
b) 41 and almost never higher than 55%
c) 50 % and almost never higher than 60%
d) 30 % and almost never higher than 40%

PART B (5 x 16 = 80 Marks)

21. a) Explain the Wool scouring and scouring condition for merino wool.

(OR)

21. b) Describe the different type of tuft blending systems for long stable spinning.

22. a) Explain the working principles of worsted carding Machines with neat sketch and their typical dimensions.

(OR)

22. b) Explain the working principles of woolen carding Machines with neat sketch and their typical dimensions.

23. a) Explain the working principle of French comb for wools with help of neat sketch and discuss the main points of difference between French comb and nasmith comb.

(OR)

23. b) Discuss the working principle of gills box process for wool with suitable neat sketch

24. a) Discuss the basic principle involved in worsted roving production with neat sketch.

(OR)

24. b) Discuss the basic principle involved in Raper Auto lever Pin drafter with neat sketch.

25. a) Describe the various operations involved in manufacturing of long stable of Woolen, worsted and modified worsted yarn.

(OR)

25. b) Discuss the Woolen and worsted yarns Characteristics and their applications

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