



**M.TECH DEGREE EXAMINATIONS: JAN 2015**

(Regulation 2014)

First Semester

**TEXTILE TECHNOLOGY**

P14TXTE03: Worsted And Bast Fiber Spinning

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. Out of the following, the one which is **NOT** a bast fiber [K<sub>1</sub>]
  - a) wool
  - b) jute
  - c) ramie
  - d) flax
2. Consider the following statements & choose correct statements from amongst the alternatives [K<sub>6</sub>]
  1. Jute fiber is shorter than cotton fiber
  2. Fineness of jute fiber is lesser than cotton
  3. Absorbency of wool fiber is lower than cotton
  4. Strength of the flax fiber is higher than cotton
  - a) 1,2
  - b) 2,3
  - c) 2,4
  - d) 1,3
3. Consider the following Assertion [A] and Reason [R] [K<sub>4</sub>]

[A] In long staple carding process, speed of the cylinder is lower than cotton carding process

[R] In long staple carding process, higher the cylinder speed damage the fiber

  - a) [A] is right [R] is wrong
  - b) [A] is wrong [R] is right
  - c) [A] is right [R] is right
  - d) [A] is wrong [R] is wrong
4. Which of the following hooks are removed by combing cycle [K<sub>2</sub>]
  - a) Trailing hooks
  - b) Leading and Trailing hooks
  - c) Leading hooks
  - d) Double hooks



**PART B (10 x 2 = 20 Marks)**

11. Define opening and cleaning. [K<sub>1</sub>]
12. Discuss the primary fiber characteristics for better yarn Quality? [K<sub>2</sub>]
13. Define precard and postcard. [K<sub>1</sub>]
14. Write short notes on worsted top finishing [K<sub>3</sub>]
15. Discuss the doubling in drawing process [K<sub>2</sub>]
16. Classify the types of autolevellers used in drawing process [K<sub>2</sub>]
17. Summarize the speed frame process [K<sub>2</sub>]
18. Classify the various types of travelers used in ring spinning process [K<sub>2</sub>]
19. Outline the open end spinning [K<sub>1</sub>]
20. Name the different types of open end long staple spinning process [K<sub>1</sub>]

**PART C (6 x 5 = 30 Marks)**

21. Outline the detail about methods of raw jute processing? [K<sub>4</sub>]
22. Sketch the working principle of woolen carding machine [K<sub>3</sub>]
23. Summarize the drafting irregularities in long staple drawing process [K<sub>5</sub>]
24. Sketch the operating details of speed frame machine [K<sub>3</sub>]
25. Diagram working principle of condensed spinning process [K<sub>4</sub>]
26. Express working principle of Dref 3 spinning process [K<sub>2</sub>]

**PART D (4 x 10 = 40 Marks)**

27. Outline the process detail about methods of removal of impurities present in raw wool. [K<sub>4</sub>]

28. Sketch the working principle of wool fiber combing process. [K<sub>3</sub>]
29. Explain the working principle of open loop and closed loop auto leveler with neat sketch. [K<sub>2</sub>]
30. Compare the difference between long staple and short staple spinning process. [K<sub>4</sub>]

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