

[Total No. of Questions - 9] [Total No. of Printed Pages - 3]  
(2125)

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**B. Tech 5th Semester Examination**  
**Multi Fibre Process and Woolen Technology (OS)**  
**TE-5005**

Time : 3 Hours

Max. Marks : 100

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt five questions in all selecting one question from each section A, B, C, D and Section E is compulsory.

**SECTION - A**

1. (a) Discuss important fibre properties and their influence on spinnability. (10)
- (b) Discuss the modern concept of blending machine as compared to conventional approach. (10)
2. Discuss in detail, the changes required from blowroom to ring spinning for spinning of polyester fibre in place of cotton fibre. (20)

**SECTION - B**

3. (a) What is a micro fibre? Mention precaution to be taken during processing of micro fibre. (10)
- (b) Write a note on:
  - (i) Silk Reeling.
  - (ii) Melange Yarn. (10)

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4. (a) Briefly discuss the end uses of Jute and Linen blended yarns and fabrics. (8)
- (b) Discuss the molecular structure and physical properties of wool fibre. (12)

**SECTION - C**

5. (a) Give a brief classification of different waste produced during spinning with their origin and probable end uses. (10)
- (b) Write a brief note on application of FAST in worsted garment manufacturing. Mention different properties measured on the instrument. (10)
6. Write short note on following:
  - (a) Back Washing.
  - (b) Wool Grading.
  - (c) Function of Gilling machine.
  - (d) Flow chart of worsted yarn spinning. (4×5=20)

**SECTION - D**

7. (a) What is Anti-shrink wool? How anti-shrink wool is produced? (10)
- (b) Explain the dyeing of wool fibre with reactive dye. (10)
8. Briefly explain the following:
  - (a) Scooping.
  - (b) Paper pressing of wool.
  - (c) Carbonizing of wool.
  - (d) Most popular dyeing of wool fibre. (4×5=20)

**SECTION - E**

9. Briefly answer the following questions:

- (i) Mention four changes in a fibre after dyeing.
- (ii) Name any two modern blending machine.
- (iii) What is a Melange yarn?
- (iv) Mention difference between a Hessian and sacked yarn.
- (v) Define woollen and worsted count.
- (vi) Why scouring of wool is necessary?
- (vii) What is decatizing of wool?
- (viii) Mention three different size of cradle used in short staple spinning.
- (ix) Mention any two changes in rotor spinning to process wool fibre.
- (x) How wool fineness is expressed? (10×2=20)