

ST. JOSEPH'S COLLEGE FOR WOMEN (AUTONOMOUS), VISAKHAPATNAM

TIME: 4Hrs/week

Basics of textiles

Max. Marks:100

Objectives: The students will be able to:

1. gain an understanding about textile fibers and their use
2. judge the quality of textile fibers
3. acquire knowledge of fibers and the various processes involved manufacture of fibers.

Course:

Unit – I: a. Introduction , scope and importance of study of textiles, general properties and classification of textile fibers

b. Nature fibers: Vegetable fibers: cotton, linen and minor cellulosic fibers – history, manufacture, properties, use and care

Unit – II: Animal fibers: wool, silk and minor protein fibers-History, manufacture, properties, use and care.

Mineral fibers: Asbestos

Unit – III: a. Manmade fibers: Rayon (viscose, Acetate and cupra - ammonium) – History, manufacture, properties, use and care.

Unit – IV: a. Spinning, methods, types of yarns (exclude chemical spinning and textured yarns)

b. Identification of textile fibers

c. Blends, mixtures and their identification

Unit – V: Laundry reagents:

a. Water: Soft and hard water, removal of hardness

b. Soaps: manufacture, properties and uses

c. Detergents: manufacture, properties and uses

d. Bleaches: Oxidizing, Reducing and Optical

e. Starches

f. Blues

References:

1. Textile Fabrics and their selections – Isabel B. Wingate – Prentice Hall Inc., New Jersey (1960)
2. Textile fiber to Fabric – Potter & Corbman – McGraw Hill Book Co., New York (1974)
3. Performance of Textiles – Dorothy Lyle – John Wiley & Sons, New York (1977)
4. The standard Hand book of textiles – A.J.Hall – English Language Book Society, Madras(1965)
5. Fundamentals of Textiles & their care – Susheela Dantyagi – Orient Longman Ltd., New Delhi (1974)
6. A student's Text Book of Textile Science – A.J. Hall – All Man & Sons, London (1963)
7. Introducing to Textiles – Evenly E. Stout – John Wiley & Sons, New York (1970)
8. Introducing Textile Science – Majory L. Joseph Hoit – RinehatWimton Inc., New York (1972)

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Unit – I: identification of textile fibers:

- a. Visual test
- b. Microscopic study of each fiber
- c. Burning test
- d. Solubility tests

Unit – II: Laundry Equipment and reagents

- a. Using of washing machine
- b. Effect of various soaps and detergents
- c. Effect of blues and starches - method

Unit – III: Thread count

Unit – IV: Shrinkage

Unit – V: Colorfastness to sunlight and crocking

Unit – VI: Basic hand stitches and embroidery

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1. Textile Fabrics and their selections – Isabel B. Wingate – Prentice Hall Inc., New Jersey (1960).
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