



Roll no.....

End Semester Examination, December 2024

B.A. (Fashion Design)- III Semester

Textile Chemical Processing (ADFD259)

Time: 2.5 hrs.

Max Marks: **50**

Note: *All Questions are compulsory. Marks are indicated against each question.*

PART-A

Q.1 Attempt any 5 of the following questions. Each question carries 2 marks.

- (a) What is the role of desizing in textile pre-treatment? [CO-1] [L-2]
- (b) Explain the difference between vat dyeing and sulfur dyeing on cotton fabric. [CO-1] [L-2]
- (c) What is the function of scouring in the pre-treatment process of textiles? [CO-1] [L-2]
- (d) Define the concept of resist printing and provide one example of its use. [CO-1] [L-2]
- (e) Describe the basic principle of rotary screen printing. [CO-1] [L-2]
- (f) What factors affect light fastness in dyed textiles? [CO-1] [L-2]
- (g) Explain the method of block printing and one key advantage of this technique. [CO-1] [L-2]

2x5

PART-B

Q.2 (a) Explain the process of dyeing silk fabric with acid dyes. Describe each step and the reasons for using acid dyes on protein fibers like silk. [CO-2] [L-3] 10

OR

(b) Identify the types of synthetic dyes commonly used for textile dyeing. Discuss their advantages and limitations, specifically focusing on dyeing synthetic fibers like polyester.

[CO-2] [L-3] 10

Q.3 (a) What is discharge printing? Explain how discharge printing differs from resist and direct printing techniques, and provide examples where discharge printing is preferred.

[CO-3] [L-4] 10

OR

(b) Analyze the benefits and challenges of using natural dyes compared to synthetic dyes in terms of color fastness, environmental impact, and cost.

[CO-3] [L-4] 10

Q.4 (a) Describe the screen printing process in textiles, including the preparation, application, and post-processing steps. What are the advantages of screen printing over other printing methods?

[CO-4] [L-4] 10

OR

(b) Compare rotary screen printing and digital printing in terms of production speed, design versatility, and environmental impact. Which applications are most suited for each method?

[CO-4] [L-4] 10

Q.5 (a) What is scouring in textile pre-treatment? Describe the types of impurities removed in this process and the impact of effective scouring on fabric quality.

[CO-5] [L-3] 10

OR

(b) Explain the bleaching process in textile pre-treatment. What chemicals are commonly used, and how does bleaching improve dye uptake and color consistency?

[CO-5] [L-3] 10