



Name :
Roll No. :
Invigilator's Signature :

CS / B.TECH (APM) / SEM-4 / APM-404 / 2011

2011

TEXTILE WET-PROCESSING – II

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

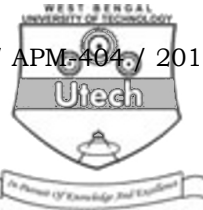
GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : $10 \times 1 = 10$
 - i) Urea is used in printing paste as a/an
 - a) Hygroscopic agent
 - b) Thickener
 - c) Mild oxidizing agent
 - d) Acid liberating agent.
 - ii) Which of the following thickeners is used for printing of cellulosic fibre with reactive dye ?
 - a) Starch
 - b) Guar Gum
 - c) Acrylic thickener
 - d) Alginate.
 - iii) Engraved roller is used in
 - a) Roller printing
 - b) Transfer printing
 - c) Flat screen printing
 - d) Rotary screen printing.



- iv) Curing operation is done for fixation of
- a) Printing of cellulosic fabric with reactive dye
 - b) Printing of polyester fabric with disperse dye
 - c) Printing of textile material with pigment
 - d) Printing of silk fabric with basic dye.
- v) 'Wavy Steak', a printing fault is generated due to
- a) Fault of engrave roller
 - b) Lint doctor blade
 - c) Colour doctor blade
 - d) Furnishing roller.
- vi) Which of the following is a chemical finishing ?
- a) Sanforizing
 - b) Decating
 - c) Calendering
 - d) Antistatic.
- vii) THPC is a chemical used to improve
- a) Antistatic property
 - b) Rot resistance property
 - c) Flammability
 - d) Crease recovery.
- viii) DMDHEU is applied on cellulosic fabric for improving
- a) Crease recovery property
 - b) Antimicrobial property
 - c) Softening property
 - d) Water repellent property.
- ix) Biopolishing of cotton fabric is carried out by
- a) Cellulase
 - b) Lipase
 - c) Amylase
 - d) Protease.
- x) DP rating is related to
- a) Antistatic finishing
 - b) Softening finishing
 - c) Wrinkle resistance finishing
 - d) Flame retardant finishing.



GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. State what are the differences between dyeing and printing.
What is Pigment dyeing ?
3. “Selection of suitable thickener for printing of cellulosic with reactive dye is more important.” Explain the statement.
Which type of reactive dye is generally used for printing of cellulosic fibre ?
4. Write the merits and demerits of transfer printing method.
Briefly discuss the selection criteria of disperse dye for printing of polyester fabric.
5. Discuss the mechanism of creasing of cellulosic fibre and state how this tendency can be reduced or prevented.
6. Discuss different kinds of chemical softener and their properties, merits and demerits.
7. Write briefly the quality of a good thickener.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

8. a) Write a printing paste formulation for cotton fabric with any particular dye and state their functions.
- b) Describe the fundamental working principle of screen or roller printing machine with the help of schematic diagram. $5 + 10$



9. a) Briefly discuss the pigment printing process with mentioning process parameters and the ingredients generally used and write their role.
- b) Explain the vapour transfer mechanism of printing of polyester fabric with disperse dye. 10 + 5
10. a) Discuss the different types of calendering machine and their finishing effect on fabric.
- b) Classify the chemical softening agent generally used in textile finishing. Write the functioning mechanism of chemical softener on textile. 10 + 5
11. Write short notes on any *three* of the following : 3 × 5
- a) Biopolishing of cotton fabric
- b) Fire retardant finish of cotton fabric
- c) Silky finish of polyester fabric
- d) Antistatic finishing of polyester fabric
- e) Waterproof breathable fabric.
12. a) Write the different kinds of water pollution parameters of effluent to be monitored for controlling of water pollution.
- b) Classify and discuss the various methods of treatment of textile effluent water.
- c) What do you mean by BOD and COD ? 4 + 8 + 3
13. a) Discuss dyeing of cellulosic textiles using reactive dyes.
- b) Discuss the methods of tests of colour fastness to washing.
- c) Discuss the process of improving wash fastness by different approaches of after-treatment. 5 + 5 + 5

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