

Invigilator's Signature :

CS/B.Tech (APM)/SEM-4/APM-404/2010 2010 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 : $10 \times 1 = 10$
 - Alginate thickener is use for printing of cotton fabric with reactive dye, because
 - a) it contains higher amount of OH groups
 - b) less amount of OH groups.
 - ii) 'Doctor Steak' a fault of printed fabric is
 - a) linear lines
 - b) wavy lines.
 - iii) Function of doctor blade is to remove
 - a) printing paste from smooth surface of engraved roller
 - b) loose fibres, dirt etc. from engraved roller.

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- iv) Discharge printing is
 - a) style of printing
 - b) method of printing.
- v) Photosensitizer is

a) an ingredient of printing paste

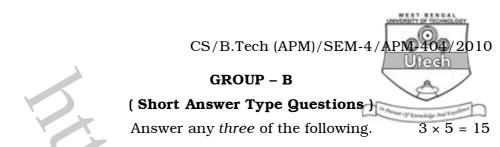
- b) a catalyst used in screen preparation.
- vi) Decating is a
 - a) mechanical finishing
 - b) chemical finishing.
- vii) Fabric made from fine cotton will wrinkle
 - a) less
 - b) more.

viii) DMDHEU is applied on cellulosic fabric for

- a) improving crease recovery property
- b) improving antimicrobial property.
- ix) Durability of laundering is higher for
 - a) anionic softener
 - b) cationic softener.
- x) Boric acid $(H_3 BO_3)$ and borax $(Na_2 B4O_7)$ act as a flame retardant by
 - a) condensed phase mechanism
 - b) vapour phase mechanism.

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- 2. Write down the different styles of printing and different methods of printing.
- 3. Discuss the different faults generally generated in roller printing machine.
- 4. What do you know about quality of a thickener ? Write the functions of carrier and swelling agent ?
- 5. Explain the different flame retardant mechanism by flame retardant chemicals.
- 6. What are the various water pollution parameters of effluent water to be monitored for control of water pollution ?
- 7. Define water repellant fabric and water proof fabric with examples. What do you mean by the term 'Lotus Effect' ?

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

- 8. a) Describe the different steps to textile printing screen production.
 - b) Describe the different control points which control the flow of printing paste through the screen.
 - c) Describe the working principle of roller printing machine with help of schematic diagram. 6+3+6
- 9. a) What is transfer printing ? "Transfer printing is a commercial decision". Justify the statement.
 - b) Discuss the different transfer printing mechanism.

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c) Discuss the selection criteria's of transfer printing dyes.

- d) Write the properties should have in transfer printing paper. 5+5+3+2
- 10. a) Write the changes which occurs in fabric after calendaring.
 - b) What are the basic differences between swizzing calendar and chasing calendar ? Explain with suitable schematic diagrams.
 - c) How you will give durable embossing finishing on natural fibre and synthetic fibre ? 3 + 7 + 5
- 11. Write short notes on any *three* of the following : 3×5
 - a) Sanforizing
 - b) Corduroy cutting
 - c) Decating
 - d) Silicon softener
 - e) Moth proofing of wool and silk.
 - f) BOD and COD.
- 12. a) Briefly explain the mechanism of creasing of cellulosic fibre with necessary representative formula.
 - b) Discuss the factors which affect the wrinkle behaviour of a fabric.
 - c) Explain the crease recovery mechanism of cellulosic fibre. 5+5+5
- 13. a) Describe briefly the function and working principle of softening agent on textile material.
 - b) What are the properties should have a good softener ?
 - c) Discuss the different kind of softening agents with example and their advantages and disadvantages.

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