



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/M.TECH(MCP)/SEM-1/MCP-102/2011-12**

**2011**

**THEORY AND PRACTICES OF TEXTILE FINISHING**

*Time Allotted : 3 Hours*

*Full Marks : 70*

*The figures in the margin indicate full marks.*

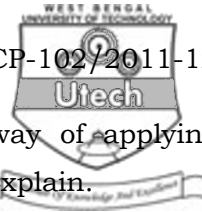
*Candidates are required to give their answers in their own words  
as far as practicable.*

*Answer any **five** questions.                      5 × 14 = 70*

1.    a)    Explain the mechanism of creasing.  
      b)    Discuss the effect of different factors like, fibre, yarn,  
            fabric on crease recovery properties.  
      c)    Briefly discuss the formaldehyde free crease recovery  
            finishing. 3 + 4 + 7
2.    a)    Discuss the different flame retardant mechanism with  
            examples.  
      b)    Discuss at least one method and chemistry of durable  
            flame retardant on cellulosic material.  
      c)    What do you mean by LOI ? For which purpose is it  
            used ? 6 + 6 + 2



3.
  - a) Discuss the basic different among water proof, water repellant and water proof breathable fabric.
  - b) What is 'lotus effect' ? Explain the mechanism of 'lotus effect'.
  - c) Establish an empirical relation between surface tension and contact angle.
  - d) "Fluorocarbon based repellents are suitable for both water and oil repellency." Explain briefly. 3 + 3 + 5 + 3
4.
  - a) Write the working principle of fabric softener.
  - b) What should be the characteristics of a good softener ?
  - c) Write a short note on silicon softener. 3 + 3 + 8
5.
  - a) Explain mechanism of static charge generation on textile material.
  - b) Discuss the problems in textile materials caused by static charge generation.
  - c) Discuss the factors which influence the generation of static charge.
  - d) Discuss the different approaches of control of static charge generation. 4 + 3 + 3 + 4
6.
  - a) Explain the mechanism of soil removal from textile materials.
  - b) Discuss in brief the chemistry of soil release finish using carboxyl-based, ethoxy-based and fluorine-based compounds. 4 + 10



7. a) "Low pick up methods are efficient way of applying finishing chemical on textile material." Explain.
- b) Discuss the different low pick up techniques of finishing textile materials. 4 + 10
8. Write short notes on the following :
- a) Plasma finishing
- b) Antimicrobial finishing. 7 + 7

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