

Total number of printed pages – 4 **B. Tech**
CPTX 8304

Sixth Semester Examination – 2008

TEXTILE CHEMICAL PROCESSING– II

Full Marks – 70

Time : 3 Hours

*Answer Question No. 1 which is compulsory
and any **five** from the rest.*

*The figures in the right-hand margin
indicate marks.*

1. Answer in brief all the questions : 2 × 10
- (a) What are the requirements of a binder used in pigment dyeing ?
 - (b) How pigment migration can be minimized during pigment dyeing ?
 - (c) Why grey cotton material is hydrophobic ?



- (d) What are the advantages of thermosol process of dyeing ?
 - (e) Define defitherm process for dyeing of acrylic fibres.
 - (f) What are the various forms in which textile materials are dyed ?
 - (g) State the material-to-liquor ratios used in jigger, winch, cabinet dyeing machine and package dyeing machines.
 - (h) Why sodium alginate is used as a thickener in reactive printing ?
 - (i) Distinguish between rapidfast and rapid-ogen colour.
 - (j) State any four common defects in printing.
2. (a) Differentiate between pigment and dye. State the properties of pigments. 2+2
- (b) Explain the steps involved in pigment dyeing along with functions of individual chemicals.

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Contd.

3. (a) Give only the processing sequence for a dyed variety polyester woven fabric from grey to finishing. 4
- (b) Explain the mechanism of dyeing of polyester with disperse dye. 6
4. (a) State the different machineries used for dyeing of polyester with disperse class dyestuff. 2
- (b) What are the advantages and disadvantages of jet dyeing machine ? 4
- (c) Explain the basic principle of a beam dyeing machine. 4
5. (a) What are the differences between water proof and water repellent finish ? 3
- (b) Explain the term "LOI". 3
- (c) Describe a suitable finishing process for imparting permanent flame retardant finish on cotton fabric. 4
6. (a) Explain with line diagram the principle behind "sanforising". 6
- (b) Why heat setting is important for synthetic and its blended textile ? 2
- (c) How will you ensure that the fabric is totally heat set ? 2
7. (a) What are the objects of printing ? 2
- (b) State the advantages and disadvantages of pigment printing. 4
- (c) What is the role of catalyst in pigment printing ? 4
8. (a) What are the advantages of discharge styles of printing ? 4
- (b) What are the functions of a thickener used in a print paste ? 4
- (c) What is the function of Rongolite in discharge printing ? 2